

**A TEXT BOOK FOR THE
COMMUNITY HEALTH NURSING -1
INCLUDING NUTRITION & HYGIENE
PSYCHOLOGY & SOCIOLOGY.**

FOREWORD

Despite great achievements in health and technology, the world is facing considerable health challenges. These include the growing population of poor who do not have access to basic health and social care, the rapid environmental changes and degradation of the environment, the economic recession and crises in parts of the world that affects the financing of health care, and the inability of technology to face the epidemics and deadly threats from malnutrition and diseases such as HIV/AIDS, malaria and tuberculosis. Over the years, hygiene has been considered to be responsible for more deaths than the bullets.

The concern of nurses is for people's health – its promotion, maintenance, and restoration. Together with midwives and health workers, constituting the majority of the qualified health workforce in most health systems, they play vital role in bringing about health awareness and the necessary changes to address these challenges.

Health promotion encompasses physical, mental and social well-being. Public health practitioners need to enhance their current professional work in health and social care, including counseling and therapy, preparedness for emergencies and crisis situations, and facilitating community involvement. Focus must be on the changing needs of the local communities that are each of them unique.

Neglect of public health also contributes to spiraling health costs. And not all people have access to medical care. Many tribal community people are in need of health and welfare service, but are not currently being served. More funds are needed for patient care, dental services, elderly services, health treatment, and community awareness programs regarding primary health care concepts and the contribution of nutrition to promoting health.

To address these issues, there is a need of political will and commitment of all the stakeholders including the local government, public health practitioners, professional groups, and the private sector.

However, all things considered, it is each individual who has to care for his physical, mental, and social health.

SWAMY BALANANDA,
GUNTUR.

PREFACE

It is accepted that studying of community health Nursing is essential for all vocational MPH students. I pleased to bring out this book framed according to the syllabus of state intermediate vocational education.

The special features of this book are for the knowledge and understanding based on the chapters of Introduction to community health nursing; Nutrition, Hygiene, Psychology and sociology are extensively explained.

Matter is brief and in simple manner. This will definitely boost the confidence of the students in writing the end examinations. Here the topics are explained based upon scientific principles have changed rapidly in both medicine and science. At the end of each chapter, there are important questions, which are useful for the student. Glossary and reference books are to be mostly useful for both students.

I am confident that this book will definitely help to the students as well as teachers.

I wish to thanks to the Board Of Intermediate education vocational, Hyderabad for giving opportunity to write this book.

CH. SLEEVAMMA
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GJC FOR GIRLS,
KHAMMAM.

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COMMUNITY HEALTH NURSING

UNIT - I

a Introduction.

"Health is Not mainly an issue of doctors, social services and hospitals. Health is an issue of social Justice.

There is no time to lose. We have the goal of "Health for all by 2000 AD". This is the call of the world health organisation. and India has taken up the challenge. Formerly, Health care has been for those living near enough to a hospital or a doctor in times of need and for those who could spend money for medicines and treatment. The great majority of people stayed in the village when sick and even today many suffer and die without proper help. Attempts have been made to meet the health needs of the people of India by means of primary health centres and the training of Auxiliary Nurse Midwives to go out from these centres to the homes of the people. The number of ANMS trained were never sufficient and more than half of them after training went to work in hospitals. In fact, their training was given mainly in the hospitals environment, with little experience and understanding of health needs of people, families and communities in rural areas

History and development of community Health Nursing:

Early history (Vedic period) Indus valley civilizations 3000 BC there were planned cities, houses built with public baths with drainage. People practiced proper environmental Sanitation 1400 BC Ayurveda and Siddha Systems of medicine come into existence which suggested development of comprehensive concept of health.

Post Vedic Period - (600 BC - 600 AD)

Medical education was introduced in the ancient Universities of Taxila and Nalanda. During Budha period hospital system was developed for men and women and for animals. This was expanded during king Ashoka, Moghal Period (1000 AD) Unani Medicine which (Arabic system) was introduced through Greek medicine which has become a part of Indian medicine. Nursing and medicine are closely linked together. Nursing is regarded on the "Science of Care" and medicine as the "Science of Cure". As the science of cure, medicine

is concerned with the diagnosis and treatment of illness. As the science of care, nursing is concerned with the care of people who are ill. The care and cure functions are complimentary ; both are necessary and important aspects of health care for the people. Nurses were recruited in India for the first time in 1914, being attached to the Queen Alexandra's military nursing Service, which was founded by Florence Nightingale. In 1927, after the first world war, it was named as "Indian military Nursing Service". In 1871 the Govt of Madras started the training for nurses. During 1874 - 80. The Christian Mission Hospitals in India started training courses for nurses.

The Roman Catholic Nuns served as nurses in many Govt., Hospitals in India as well as in Hospitals run by religious orders.

Auxiliary Nurse Midwives:

The use of auxiliary Nursing Personnel to ease the shortage of professional nurses put into practice in India. A 2 Yrs., course for the training of ANMS was first started in 1951 at St. Mary's Hospitals, Punjab. By 1962 there were 263 courses being offered in India. The ANM is trained in midwifery with same Nursing skills and orientation to public health and Family Planning. In 1977 the ANM Course was completely revised by the Indian Nursing Council and expanded to include Sociology, Health education and communication skills and decided to change ANMS to multipurpose workers and designate them as multipurpose health workers (Female). By 1978 there were 329 ANM Schools Functioning in the country. The existing ANMS are given an orientation course for a period of 10 weeks to give them additional knowledge and skills required by the multipurpose workers, and this programme is scheduled to be completed by 1983. In most states, the name of ANMS has now been changed to Health Worker (Female). It is envisaged that by the end of the VI five year plan. There will be one Health worker (F) for every 5,000 population in the country and they will supervise the duties of ANMS. The ANMS are responsible for MCH and family planning work in an area of 5,000 population. She is most important person who plays a role in rural health services are taken care of by specially trained multipurpose Health workers, male and female.

Community :

Community means a group of people living in a certain locality such as a village, who have common interests. They meet and react with one another. They may have different interests also and not get on well with one another. Some are rich, others poor, some eat too much. Other may go hungry, some have power and influence and may like to give orders. Others have no power and suffer injustices.

The best kind of community is one in which every one cares about all the other members of the community. As a health worker you will be working with the community to help them in solving their problems especially to be more healthy in every way.

Community Health:

Community health includes the state of health of the members of the community, the problems effecting their health and the health care provided for the community. In community health work we help people to find out and think about their health problems and what can be done to improve the health of the whole community. Then we work together with the people and others in the health team to plan and carry out the problems of health care.

B) QUALITIES AND FUNCTIONS OF COMMUNITY HEALTH NURSE:

Qualities of Community Health (Worker) Nurse:

As a health worker living and working in a community, you may at first feel a stranger. You will realise that people are watching what you do, what you say and how you react to them. If your appearance, words and behaviour displease or shock people, if you seem to be proud and different or have a habit of gossiping, then you will not be accepted by the community and can do no effective work there.

Student health worker need guidance and help in how to behave acceptably. There is a code of ethics for nurses published by the International Council of Nurses which may also guide the Health worker. In brief it is as follows:

- 1 Have respect for life, dignity and rights of people, and serve them all without regard to race, religion, Colour, age, Sex, Politics or Social Status.
- 2 Have respect for the values, customs and spiritual beliefs

of people.

- 3 Do not pass on personal information except to the right person.
- 4 Keep up a high standard of work and personal conduct.
- 5 Maintain a good relationship and Co-Operation with Co-workers in the health team, and community.

Other points which are important for the health workers to remember and practice are as follows:

- 1 Always be neat and clean in appearance, and walk with purpose and good posture. This will make you feel good and make a good impression on others.
- 2 Take special care of your own health of body and mind, and set a good example in your personal life and habits practice what you teach.
- 3 Be Cheerful and enthusiastic in your work, and keep a sense of humour.
- 4 Be disciplined in your use of time keep up punctuality cleanliness and order. Have respect for property other than your own.
- 5 Be obedient to your superior officers (with intelligence) and uphold their authority. Show them proper respect, and use correct channels of communication. Keep to service rules.
- 6 Try to understand other people and the reasons for what they do and say. Be tactful, patient, sympathetic and kind in your attitude to them.
7. Always be ready to help people with concern and care, but refuse to receive bribes.
8. Develop good friendships and interests apart from your work. Try to have a hobby and healthy relaxation.
9. Use every chance to go on learning, by reading books and journals and news papers. Also learn from people who can be helpful to you personally and to improve your work.
10. Be disciplined in your spiritual life, in order to have resources to help others in distress of spirit.

FUNCTIONS OF COMMUNITY HEALTH NURSE (WORKER): -

The Community Health Nurse must be prepared to play a much wider role than is offered by her work in hospitals. There is much greater element of decision, making. Management skills, administration of programmes, teaching and acting as a team leader, as well as a member of the health team are all important perhaps the most crucial requirement is that the nurse must be prepared to learn from the people, and share leadership with them when it is necessary and to plan with them.

The functions of a community health nurse have been classified broadly under the following heads:

1. Administration.
2. Communication.
- 3.. Nursing.
4. Teaching.
5. Research.

1. Administration : The nurse is responsible for the day-to-day assignment of the nursing staff and supervision of these personnel. She provides direction and leadership to those whom she supervises. She is responsible for planning, implementation and evaluation of a practical plan of nursing administration within the primary health centre and its associated sub centres.

2. Communication : This involves ability to maintain good working relationship with members of the health team, related agencies and the community. She is a link between the patient, The family and the doctor. She participates in the staff and community meetings.

3. Nursing : She provides comprehensive nursing care to individuals and families. This includes family care of the pregnant women, before, at the time of and after delivery, care of the new born, the premature, the infant, toddler, the school child, nutrition and family planning.

4. Teaching : Knowledge and skills of methods of individuals and group teaching, preparation and use of simple teaching aids; training of dais and health workers ; participation in student training programmes, if any.

5. Research :- These is probably far more research relevant to nursing than nurses realise. A good deal of knowledge derived from sociology and psychology is relevant to public health nursing, viz., infant feeding and weaning, mother and child relationship nursing needs and practices in the community, utilization of the existing nursing services, job analysis of nursing personnel in the team.

C. FAMILY HEALTH SERVICES:

The term "Family Health" covers a broad field. It is one of the major activities of the world health organisation. It is divided into the following sub-areas:

- a. Maternal child health services.
- b. Family planning services.
- c. Nutrition.
- d. Health education.

The broad objectives of the family Health services are:

- a. To reduce maternal and child mortality and morbidity rates.
- b. Spacing of children.
- c. To solve the problems of malnutrition at the family level and
- d. To educate all members of the family in the basic requirements of healthy living.

(a) Maternal and Child Health.

The Need for MCH Services :-

There are 4 main reasons why mother and child health care must be given top priority in terms of providing health services:-

1. Mothers & Children below the age of 15 yrs., make up the majority of the population.
2. Mother and children constitute a "Special risk" or vulnerable group.
3. By improving the health of mothers and children we improve the health of the family & community.
4. Ensuring child survival is a future investment for the family & Community.

Definition: According to WHO is "The promotive, preventive, Curative and rehabilitative care for mothers and childrens."

Objectives of MCH care:

The Objectives of MCH care have been defined as below:

- a). Reduction of Maternal, perinatal, infant and child mortality & Morbidity.
- b). Promotion of reproductive health.
- c). Promotion of physical and Psychological development of the child and adolescent within the family. The ultimate objective of MCH care is life long health.

The Role of Nurses in MCH Care:-

The functions are explained under 4 headings as follows:

1. Direct Care Provides:-

- a) Antenatal Care i.e, Care of the women during Pregnancy.
- b) Intranatal Care i.e, care of women at the time of delivery.
- c) Post Natal care i.e, care of the women after delivery.
- d) Child care : i.e., child survival activities i.e.,
 - Immunization.
 - Promotion of breast feeding.
 - Growth monitoring.
 - Weaning.
 - Oral rehydration, when necessary
 - Birth spacing..

2. Health Communication and Education:

The groups that require priority attention are .

- Dais.
- Mothers.
- Family.

3. Supervision and management :- The Community health Nurse will have to supervise the work of dais, ANMS & Female workers.

That means supervision of records, individual conference and counselling.

4. Research & Evaluation influence the Welfare of mothers and Childrens:-**(b) Family planning Services**

Family planning being a national programme. The main role of a health worker in family planning services are:-

1. Education and Counselling.

2. To assist the Physician.
3. To promote the concept of small family and child spacing.
4. To spread information to all eligible couples about family planning methods.
5. To arrange for clinical and surgical services.
6. To ensure an adequate supply of Contraceptives.

(D) SCHOOL HEALTH PROGRAMMES.

The school health services are important dimension of community. the reasons are large number in the total population, due to rapid growth and development, for early detection of nutritional and communicable diseases, due to group living.

Objectives are as follows:-

1. The promotion of positive health.
2. The prevention of disease.
3. Early diagnosis, treatment and follow up of defects.
4. Awakening health conscious ness in children.
5. The provision of health full living.

Aspects of school health services:-

Some aspects of school health services are as follows:-

1. Health Appraisal of school children & School personal.
2. Remedial measures and follow up.
3. Prevention of communicable diseases.
4. Health ful school environment.
5. Nutritional Services.
6. First aid and emergency care.
7. Mental Health.
8. Dental Health..
9. Eye health.
10. Health Education.
11. Education of Handicapped children.
12. Proper maintance and use of school health records.

1. Health Appraisals:-

Health Appraisal consists of periodic medical examination of school children and also teachers & other school personal.

a) Periodic Medical Examination :- The School Health committee (1961) in India reccommended medical examination for

the children who are newly entered in the school and there after every 4 years. The physical examination include - test for Vision, hearing, speech, blood, Urine, and faces.

b) Dental Examination :- Children are frequently suffer from dental diseases i.e., dental Carries. So atleast once a year dental examination should be provided.

c) School Personal :- Teachers & School personals are some of inspection like pulmonary tuberculosis. So they should also be examined.

c) Daily Morning Inspection :- Some of the Childs helps the teachers in detecting those childrens who need medical attention they are unusually flushed face.

- Any rash or spots.
- Sore throat, rigid neck, nausea, vomiting, Red or water eyes.
- Head ache, symptoms of acute cold, chills or fever, diarrhoea , body pain.
- Head lice, skin infections like scabies etc.

2. Remedial Measures and Follow up:-

After medical examination they should be given appropriate treatment and follow up. Special clinics should be conducted.

3. Prevention of Communicable Diseases:-

This can be done by National Immunization programme. A record of all immunization should be maintained as part of schoolhealth records when the child leaves the school, the health record should be accompanied with him.

4. Healthfull School Environment :-

A healthful school environment is necessary for the child to grow best as emotionally, socially & Personal healthy. The school authority should follow same standards towards location, site structure, class room, furniture doors and windows, lighting, water supply, eating facilities and lavatory for the school.

5. Nutritional Services :-

If the child is physically weak, he may be mentally weak also. So the child can't take full advantage of schooling. In India the nutritional disorders are malnutrition, Vitamin, Iron and Calcium

dificencies. To prevent these disorders the midday school meal, applied nutrition programme, Vitamin A prophylaxis (Against blindness) programmes are complimentary.

6. First aid and emergency care:-

The School teachers should be well trained during teacher training programme or in service training programmes in order to give first aid and emergency care for the pupils in school premises.

7. Mental health:-

The School is the right place for shaping the child's behaviour and promoting mental health. The mental health of the child affects the physical health and learning process. Some of the school children problems are drug addiction, Juvenile delinquency and maladjustment. The school teacher plays an important role helping the child to attain positive mental health.

8. Dental Health Service:-

A school health programmes for dental examination at least once in a year should be provided for the children to prevent dental diseases & maintain dental hygiene.

9. Eye health Services :- The eye health services are to be provided in school to detect the refractive errors, treatment of squint, eye infections such as trachoma.

10. Health Education :- In school Health services the most important element is health education towards environmental health, personal hygiene and family life.

11. Education of Handicapped children :- The ultimate goal is to assist the handicapped child and his family members and the child will be able to reach his maximum energy to lead a normal life as possible.

12. School health Records :- In school, there should be a cumulative record for every student. Such record contain identifying data, i.e., date of birth, parent's name & Address, past health history & findings of physical examination & Screening tests and record of services provided. These records are useful to analyse and evaluate the school health programmes & provide a useful link between the school, home & the community.

Role of the Community Health Nurse in the school Health Programmes: -

- She is a counsellor and educator of health.
- She plans the health talks to be given in school.
- She provides guidance to the teachers and parents in matter of health.
- She is the Co-ordinator and organiser of the school health programmes.
- She helps and bridge the gap between what the child learns at school and practices at home.

SUMMARY

1. The health worker in her role as a community health nurse needs to :

To know the history and development of community health Nursing in India.

2. Recognise her own self worth and that of others in the community.
3. Recognise the concept of health and community.
4. She should know the qualities and functions of community health nurse.
5. She plays a vital role in rendering MCH services.
6. Recognise the importance of school health programmes.

QUESTIONS

1. Briefly describe the history of Community Health Nursing?
2. Write in detail about functions of community health nurse?
3. List out the qualities of community health nurse?
4. Explain role of nurse in School health programmes or services?
5. Explain in detail about family health services.?

UNIT II**PLANNING OF COMMUNITY HEALTH SERVICES****The Process of Nursing:-**

Nursing is seen as a process, which is described as including.

1. Recognition :- This process is initiated by the recognition of a need. This is based on nursing observation, perception and judgement.
- a) Assessment :- Having recognized that a need exists, an assessment of the possible courses of action is made. The nurse must decide what action should be taken and whether she is capable of taking such action.
3. Intervention :- The nurse carries out activities decided upon as being most effective, in order to fulfill the recognised need. This phase contains all the tasks, procedures and practices which are performed by nurses. This is also the phase which has received the greatest attention both in the teaching and practice of nursing.
4. Evaluation :- The Nurse should know the effectiveness of the nursing intervention. It demands a similar range of perceptual and judgment skills as the recognition phase.
5. Organization :- It is the ability on the part of the nurse to organise nursing activity and to recognise the place of that activity in relation to others also involved in caring for the patient or client.

THE BASIC PRINCIPLES WHICH INCLUDE IN COMMUNITY HEALTH**1. Meet the Community:-**

It is first necessary to meet the community, in order to establish contact with community leaders, existing institutions.

Obtain consent of the local leaders for a base line survey of the health situation.

2. Identification (or Recognition) of health problems and needs
various approaches may be used to identify community health problems and health needs they include:

- Base - line survey.
- Scrutinising the records of PHC and subcentre.

- Specific questions regarding diseases common in the area.
- Questions regarding births, deaths, disability, failure to work etc.,

3. Setting Priorities among health problems:-

Four criteria are used for setting priorities among health problems.

- a) Frequency with which the problems occurs (prevalance)
- b) Seriousness of the problem for individuals and society.
- c) Urgency of the problem.
- d) Feasibility or susceptibility to control the problem within the financial resource limitations.

4. Planning and problem solving:-

Having recognized that a problem or need exists, the community health nurse must decide what action should be taken by the health team. Planning involves questions of setting objectives, and defining solutions to the problem.

5. Intervention of Implementation :-

The community health nurse carries out activities decided upon as being most effective in order to fulfil the recognized need.

6. Evaluation :-

Evaluation will measure the extent to which the problem has been solved or the need met. Evaluation provides "Feed back" that can lead to programme modification, which will make the programme more effective.

EQUIPMENT AND THEIR CARE

No home visit should be made without bag or kit. There are two separate kits.

One for deliveries (Delivery kit) and the other for general nursing and for prenatal and postnatal visits.

1. Delivery Kit:-

The UNICEF kit is widely used for deliveries and is most suitable. The equipment is contained in an aluminum box or leather bag.

CONTENTS OF UNICEF DELIVERY KIT

Item	Quantity
- Plastic bag containing plastic apron and sheet, with soap, nail brush and towel in a water proof bag.	1
- Kidney trays	2
- Lotion bowls	2
- Pairs of artery forceps	2
- Pairs of dissecting forceps	1
- Pair of Scissors	1
- Bowl lifting forceps	1 pair
- Gloves	1 pair
- Instrument box (Containing syringe and needless)	1
- Complete set of enema can with tubing, catheter & clip	1
- Urethral Catheter	1
- Mucus extractor	1
- Spring balance	1
- Clinical Thermometer	1
- Rectal Thermometer	1
- Stock of cotton for making boiled swabs - sufficient	
- Sterile gauze peices for card dressing, mouth wipes, cord binders sufficient.	
- Antiseptic lotion (Dettol bottle)	1
- Prescribed drug - Ergometrine, Methergine tablets soda salicylates one containing.	
- Feto scope	1
- Measuring tape	1
- Notebook, pen / pencil, Paper bags (nto to kept inside the kit)	

COMMUNITY HEALTH NURSING BAG

Contents of Nursing bag :-

Item	Quantity
- Soap, nail brush and towel in water proof bag	1
- Complete set of enema can	1
- Urinary Catheter (Rubbers)	2
- Clinical Thermometer	1

- Retal Thermometer	1
- Scissors	1
- Artery forceps	2
- Dressing forceps	1
- Gallipot	1
- Kidney tray	1
- Bag of sterilised dressings	1
- Measuring Tape	1
- Fetoscope	1
- Bag of Sterilised swab sticks	1
- Spring balance	1
- Rubber gloves	1
- Large cotton bag	1
- Any prescribed drugs (spirit, gentian violet etc.)	
- Cord and perineal dressings	
- Mucus sucker	1
- Cord ligatures	1
- Eye antiseptics	1
- Urine analysis outfit	1
- Small cut sized papers for giving medicines	
- Pen, Pencil note book or diary along with her.	

CARE OF THE EQUIPMENT

Regular care equipment is most important:

- To prevent any possibility of errors infection by carrying contained articles from house to house.
- To preserve the equipment for use as long as possible, and
- To put it to the best possible use.

It should be remembered that the contents of the kit clean and in good condition but not necessarily Sterile. The following practices are recommended for different types of equipment.

1. Bag :- If the bag is metal, it may be well washed with soap and water or boiled. If it is leather, it can be dried in the sun. The cotton lining must be clean and boiled & replaced. As outer pocket can be made for keeping soap, towel and news paper.
- b) Rubber goods :- All should be well washed in soap and water and rinsed. Tubes and catheters must be hung to drain. Plastic

apron and sheeting should be hung in the shade to dry. Gloves should be dried with clean cloth both inside and outside and aired for a few hours. Rubber goods sterilized, put them in boiling water and boil them for 10 minutes.

c) Thermometer :- It should be soaked in an antiseptic solution, after washing with soap and water.

d) Bottles :- All bottles should be emptied once a month, after the corks are removed. The bottles & the corks should be boiled. Clean, well marked labels should be affixed on the bottles giving the contents and dosage before filling them up.

e) Enamelware and Stainless Steel:-

Boil such ware for 20 mts., dry with a clean towel while the ware is still hot. In an emergency, it may be flamed (for this, rinse the bowl with a little spirit, then set fire to it with a match, being careful to do this only where there is no danger of setting fire to anything else).

f) Cord Ligatures:-

Remove the screw from the bottles and boil the bottles, the top and the threads for 20 mts. Then place threads into (Spirit) bottle & use sterile forceps. Replace the cork and screw it tightly.

g) Eye Antiseptic :-

If a silver Nitrate preparation is used. It must be renewed every week. It is very important that this bottle be well labelled. Now a days, freshly prepared lotion of penicillin 1/100 is generally used.

h) Instruments :- All instruments should be washed well with cold water after use, boiled for 20 mts., and dried with a clean towel before being replaced. Do not boil the scissors. These can be thoroughly washed with soap & water, flamed or put in an antiseptic solution before use. A little oil can be added at the joints and blades after several uses to keep scissors sharp and unruined.

i) Dry Dressing and swabs :- There are several methods of sterilizing dressing and swabs:

- Arrangements can be made with the local hospitals or primary health centres to sterilize dressing.
- The swabs and dressings can be packed in small cotton bags

and then be placed in lined tins and auto claved in the usual way.

- Swabs can be baked in the tins. The bottom and top of the this must be perforated & the lid let open during baking.

j) Blood - Pressure Machine :- The Cotton arm band should be seperated from the rubber bag and then washed & Ironed in the usual way.

k) Stethoscope :- The chest piece may be immersed in soapy wate or an antiseptic solution.

The kit must be placed in a safe and clean place and not locked away, as it must be available at all times.

The delivery bag should be completely disinfected after each use. If the same bag is also used for nursing care, empty the bag completely and boil all boilable articles. Soak other equipment in antiseptic or soapy water. Wash the bag after completion, wash your hands well.

RECORDS AND REPORTS

Record and Reports are neccessary to collect information useful for :

1. Assessing the health of the community.
2. Collecting statistics, which are very important to health authorities.
3. Attention of the doctor or other members of the health team to specific needs of individuals or familieis, and for follow up services.
4. Information of Supervisors in assessing work done.
5. Assessing need for various drugs, transport etc., based on numbers and types of patients.
6. A tool for health education of individuals, families and communities.
7. Evaluating progress of the health programmes for replacing.

Records to be maintained in the sub-centre include:-

1. Village Records, with general information about each village.
2. family folders, and individuals health cards.
3. Eligible couple register and record of contraceptives distributed.
4. Maternal and child health records (Including antenatal care, child care, Nutrition and immunizations).

5. Records of distribution of iron and folic acid, also Vitamin A solution.
6. Vital events Register (Births and deaths).
7. Stock register for receipt, issue and balance of drugs, contraceptives, stationery etc.
8. Records of medical care and referrals.
9. Inventory of furniture, linen and equipment.
10. Records of meetings with Village Health Guides and dais, co-workers and supervisors.
11. Monthly reports and other periodic reports as and when required.
12. Daily diary.
13. Maps, Charts, Graphs.

HOW TO MAINTAIN RECORDS: -

1. Record must be kept carefully and in clean conditions, safe from rats and insects.
2. It is important that records are not lost or mislaid. They are confidential and should be shown only to authorized persons.
3. Have a good system of filing, family folders, including records of individuals. Should be divided into localities and filed in order of house numbers. It is useful and also to have a register or index cards filed in alphabetical order of the heads of the families.
4. Records must be readily available and kept up to date.

HOW TO WRITE RECORDS AND REPORTS: -

Remember that the delivery of health services is not complete until details are written up in the correct register or record. The last half an hour of each day's work should be reserved for completing the records.

In Writing records and Reports.:

1. Write them promptly, and keep them up to date.
2. Write legibly, to be understood by others.
3. Keep sentences short and clear.
4. Be accurate and complete in important details.
5. Replace records in their proper place.
6. Consult your supervisor in case of difficulty in completing records and writing reports.

Daily Dairy :

It is not practicable for the health worker to take registers and large record books while carrying out village visits, yet memory is unreliable. There fore a notebook called dairy isto be carried and used constantly and the information written up in the proper record on return to the sub-centre.

The purpose of dairy is :

1. For immediate record of day's activities by the health worker.
Eg: Home Visits, Immunizations, Vitamin A administration, health teaching. given etc.
2. To record the name and address of persons to whom preliminary help has been given , and follow up to be done or referral if needed.
3. To record observations during village visits and matters meeding to be reported to the supervisors or PHC authorties.

The information shoudl be neatly, correctly, and honestly written

Monthly Report :

At the begining of each month the health worker has to complete the report forms and submit one copy to her supervisor keeping one copy in her file at the sub - centre.

The report includes detailed information of work carried out by herself, Villages Health Guides and Dais during the previous month, under the following readings.

1. Immunization.
2. Communicalbe diseases.
3. Vital Events.
4. Family planning.
5. Meternal and chidl health (Including deliveries , care of the under five and nutrition supplmenets supplied)
6. Enviromental Sanitation.
7. Treatment of minor elements (patient numbers, and referrals)
8. Health education activities
9. Home visits.
10. Other activities.

Common Ailments and Treatment

Some of the common minor ailments which can be treated at home are listed below:

1. Eye Infections:-

- Eye infections cause burning pain in the eyes, watering of the eyes,
- Light makes the pain worse.
- Sticky pus & cause eye lids stick.
- Eyes become red.

Treatment:-

- Find out the cause.
- If the conditions acute clean the eyes carefully and put antibiotic eye drops or ointment, .
- Close the eyes with soft bandage.
- Refer the Patient without delay.
- Give aspirin to relieve pain.

2. Ear Ache:-

- It is a common problem in children.
- Trouble may be in the external ear or middle ear.
- Middle ear infection is common and serious.

Treatment :-

- Observe the ear for any discharge like watery or serious or pus.
- Observe for any throat infections.
- Examine for the pain.
- Observe for other complaints like cold, too much wax.
- Chronic condition may cause deafness.
- So immediate appropriate care should be necessary.
- Clean the Ear gently.
- Instil antibiotic ear drops 4 times a day.
- Give aspirin tablets for 3 days.
- For children below 3 yrs., with middle ear infection can start penicillin injections and paracetamol tablets.
- If any Foreign body or wax, should not try to treat the condition. This may worsen the condition further.
- Refer the case immediately to the hospital.

3) COMMON COLD: -

- The patient has a watery discharge from the nose, with sneezing and itching.
- Symptoms come on suddenly and frequently.
- The person may be allergic to dust, feathers, pollen or some food item..

Treatment :-

- Give antihistamine tablets.
- Tell the patient to try to observe what causes the allergic reaction and try to avoid contact with that item.
- If there is no improvement, refer the patient.

4. Sinusitis:-

- This is a common complaint of cold.
- The patient is suffered severely with pain and tenderness in the bones just above or below the eyes.
- Severe head ache.
- Pain increase when the patient bends forward.
- There may be thick mucus or pus in the nose.
- Discharge smells badly.

Treatment :-

- Tell the patient to take steam inhalations with Jandubam.
- Decongestant tablets or nose drops for relief.
- Aspirin or paracetamol to relieve pain.
- If there is no improvement after 3 days, refer the patient.

5. Sore throat :-

- Due to tonsillitis throat may be red, and tonsils are swollen and pus discharge.
- The patient feel difficult to swallow.
- Fever and cough present.

Treatment :-

- Give aspirin for 3 days to relieve pain and fever.
- The voice should be rested and no smoking allowed.
- If no improvement after 3 days, refer the patient.

6. Cough :-

- Cough is the most common symptom of respiratory disease.

Treatment

- If the cough is dry, steam inhalations and taking extra fluids will help to loosen mucus.
- Expectorants may be given.
- Advise the patient not to smoke, if he is smoker.
- If suspect TB refer the patient.

7. Chest pain :-

- May be occur for pneumonia, pleurisy, TB, and Fibrosis.

Treatment :-

- Give aspirin for 4 days, if no improvement refer patient for hospital.

8. Asthma:-

- The patient feels dyspnea (Difficulty in breathing).
- Wheezing.
- Cough and Cyanosis.

Treatment :-

- If not severe give ephedrine or theophylline.
- Give a lot of liquids and steam inhalations.
- Patient needs calm and quiet environment.
- Refer the case to the hospital.

9. High blood Pressure:-

- The blood pressure may raise due to several reasons.
- If the patient is suffering continuously with high B.P.
- The following symptoms should be observed.
- Head ache.
- Fatigue and dizziness.
- Palpitations.

Treatment :-

- The patient should take pills regularly in order to keep well.
- Health teaching regarding same conditions.
- If patient is overweight, he should lose weight by avoiding sweets, and fatty foods and eating less staple foods.
- Use Sunflower oil for cooking.
- Use little or no salt in cooking or do not add salt to meals.
- Don't take strong coffee.
- Avoid smoking and alcohol.

- Learn to relax more and take moderate exercise.

10. Anaemia :-

- Causes includes hookworm, malaria and malnutrition.
- Patient may looks pale.
- Patient Complaints of feeling tired and weak.
- Giddy or faint.
- Swelling of feet.

Treatment :-

- Treat the patient according to the condition.
- Health education regarding food i.e., green leafy vegetables, fresh vegetables, meat eggs, pulses, jaggery honey etc.

11. Tooth Ache:-

- Tooth ache may occur due to bad oral hygiene, infections, or in dental caries.

Treatment :-

- If there is no cavity, no swelling or fever give saline or Potassium Permanganate (KMnO_4) mouth wash and health teaching about oral hygiene.
- If there is fever give aspirin and mouth washes 3 times a day. after 3 days if no improvement, refer to a doctor.

12. Diarrhoea :-

It is a common complaint.

The Causes are poisoning.

- Malnutrition.
- Intestinal infections.
- Intestinal tumors.
- Emotional disturbances.

Treatment :-

- Treat for the dehydration without delay.
- Give rehydration drinks frequently.
- Plenty of liquids, which should be boiled and served warm.
- Rehydration drinks are weak tea, rice water, soups, coconut water etc..

13. Indigestions:-

- In this patient may feel stomach pain, heart - burn, flatulence,

regurgitation of fluid and constipation.

Treatment

- Health teach should be given to patient regarding avoidance taking improper food.
- Avoid eating quickly or swallowing without chewing the foods.
- Avoid taking too spicy or fatty foods or too much alcohol.
- Maintain to take balance diet according proper timings.

14. Head ache :-

- Pain may be present on forehead at temples, or back of the head or on sides. It is due to lack of sleep food, nervous tension worry, eye strain, indigestion, constipation, and menstruation.

Treatment :-

- Rest in a quit, darkened room without food or drink for 2 hours.
- Paracetamol or Aspirin with strong coffee or tea should be take.
- Massaging the back of neck, forehead and shoulders may release tension.
- If other reasons treat for appropriate cause.

15. Backache:-

- You should not the sex, age, general health and occupation of the person.

Treatment :-

- The patient should take complete rest on a firm bed. Local heat and aspirin may relieve pain for 4 days.
- After 4 days if no improvement refer to doctor.

16. Retention of Urine:-

- This may occur due to fall from high place or urinary infections.

Treatment :-

- Patient may listen the running tap sound or you can pour water on the lower abdomen slowly by one feet height.
- Refer the patient to doctor if no progress.

17. Fever:-

- Fever may arise due to many reasons. It may be due to malaria, filaria, Polio, Typhoid or any other infections etc., signs and symptoms are body pains, Raise of temperature, Headache, Fatigue.

Treatment :-

- Give paracetamol 500 Mg. 3 times a day for 4days.

- Take rest.
- Take Plenty of fluids and fruit juices.
- Soft diet should be taken fatigue.

SUMMARY

- Planning of Community Health Nursing Services are Recognition, assessment, intervention, evaluation, and organization.
- The basic principles that are to be practiced are meet the Community, Identification of health problems, setting priorities, planning and implementation and evaluation.
- The Community health Nurse should have delivery kit and home visiting kit along with her.
- She should know the care of each equipment and maintain them properly.
- She has to maintain the records and reports properly and promptly.
- The health worker has to complete the monthly report forms & submit one copy to her supervisor keeping one copy with her.
- The health worker should know various minor disorders and their treatment. The various minor disorders are eye infections, earache, fever, cold, cough, back pain, retention of urine, etc.

QUESTIONS

1. Write in detail about planning of community health services ?
2. What are the basic principles followed by the Community Health Nursing Service Explain briefly?
3. What are the equipment present in UNICEF delivery kit?
4. What are the equipment present in Community Health worker home visiting bag?
5. Write briefly about care of the equipment?
6. List out the records maintained by Health Worker in Community.
7. Name some of the minor disorders and explain. What are precautions taken for ear ache, High B.P. And Anaemia?

UNIT - I NUTRITION

Introduction: -

Man kind eats to satisfy the feeling of hunger. Nutrition plays an important role in the promotion and maintenance of health and in the prevention of disease in order to keep well our bodies, need nourishment.

Just as a plant will not grow without water sun shine and proper manure, human beings also need food stuffs of different kinds of nourish to the body. Malnutrition and under nutrution are the greatest international health problems of the present day. A sound knowledge of nutrition is therefore essential for all community health workers. Nutrition deals with the way in which the human body receives and uses all the substances or materials necessary for its growth and development and for keeping it in good condition.

DEFINITION: -

Nutrition may be defined as the Science of food and its relation ship to health. It is concerned primarily with the part played by nutrients in body growth and development and maintenance.

The word nutrient or "food factor" is used for specific dietary constituents such as proteins, Vitamins and minerals. Dietetics is the practical application of the principles of nutrition, it includes the planning of meals for the well and sick.

Good nutrition means "maintaining a nutritional status that enables us to grow well and enjoy good health.

Relation of Nutrition to Health: -

A person who does not eat the right foods or does not eat enough is malnourished and we call this as malnutrition also means that a child is less clever than he should be. The trouble may start even before birth if his mother does not have the right foods when she is pregnant. The malnourished child does not play but sits doing nothing. He is slow in learning to walk and talk. At school he is hungry, sleepy, dull and very slow to learn. The children are slow in passing mile stones.

Good nutrition is a basic component of health. The relation of nutrition to health may be seen from the following view points.:

1. Growth and development :-

Good nutrition is essential for the attainment of normal growth and development. Not only physical growth and development, but also the intellectual development, learning and behaviour are affected by malnutrition. Malnutrition during pregnancy may affect the foetus resulting in still birth, premature birth and small for the dates babies. He is under weight because of not having enough of the kind of foods needed for growth. Good nutrition is also essential in adult life for the maintenance of optimum health & efficiency. So nutrition affects the individual's health from birth to death.

2. Specific deficiency :-

Malnutrition is directly responsible for certain specific nutritional deficiency diseases. The commonly reported ones in India are Kwashiorkor, marasmus, blindness due to Vitamin A deficiency anaemia, beri-beri, goitre etc., Good nutrition therefore is essential for the prevention of specific nutritional deficiency diseases and promotion of health.

3. Resistance to infection : Malnutrition predisposes to infections like tuberculosis. It also influences the course and outcome of many clinical disorders. Infection, in turn, may aggravate malnutrition by affecting the food intake.

4. Mortality and Morbidity :

The indirect effects of Malnutrition on the community are even more striking a high general death rate, high infant mortality rate, high sickness rate and a lower expectation of life. Over nutrition, which is another form of malnutrition is responsible for obesity, diabetes, hypertension, cardiovascular and renal diseases, disorders of liver and gall bladder.

More recent reports suggest that diet perhaps plays an important role in certain types of gastrointestinal cancers. It is now quite well acceptable that diet and certain diseases are inter-related.

Here is a comparison of the effects on people of good nutrition and malnutrition:

Good Nutrition	Mal Nutrition
1. Correct weight for height and age	Weight too much or too little
2. Strong Muscles	Weak muscles.
3. Limbs straight.	Bow - legs or knock, knees.
4. Smooth, clear skin, mucous membranes a good colour	Skin dry and rough, mucous membranes pale
5. Healthy, bright eyes; clear sight	Eyes dull; night blindness ; poor sight or loss of sight.
6. Hearing good.	Hearing poor.
7. Breathing unobstructed.	Mouth breathing ; adenoids.
8. Teeth well formed, and free from dental caries.	Uneven teeth; dental caries; spongy gums.
9. Tonsil clean and small	Tonsils enlarged, often sore.
10. Erect posture in sitting, standing and walking.	Round shouldered ; twisted spine; protruding abdomen .
11. Nerves steady; expression calm and cheerful, quick to learn.	Nervous, anxious, irritable, slow to learn.
12. Plenty of energy	Tired and listless.
13. Good resistance to infections	Poor resistance to infections.

Relation of other factors of importance for nutritional status and health.

There are many other factors which affect the nutritional status of the health of the individual. The most important of which are:-

1. Surface area of the body :-

The larger the surface area of the body in relation to bulk, the greater the use of (Nutrition) diet.

Eg. :- A tall man lost his energy more when compare to short man with same weight. So the tall need and should eat more compare to short fat man of the same weight.

2. Sex:-

Energy using by the body surface area in men is more compare to the women. So the calory requirement is also more in men than women.

40 calories per Sq. Metre per hour for men.

37 calories per sq. metre per hour for women.

3. Age:-

Growing children and adolescents need more diet than adults.

4. Diseases :-

Some diseases, especially thyroid gland, may increase or decrease the basal metabolic rate. So the intake of food also increases or decreases in thyroid problem cases.

5. Under Prolonged or Chronic under nutrition the diet intake is decreased.

6. Psychological or emotional tension caused by worries or stress will increase the intake of diet.

FUNCTION OF FOOD :-

1. For growth or body building, and for repair of tissues protein foods mainly used.

2. To provide energy for doing work staple foods and fats.

3. To help the body to function properly and to protect from disease Vitamins and minerals.

On the basis of the above functions foods have been classified as:-

1. **Energy Yielding foods:-** These are rich in carbohydrates and fat. Eg. Rice, wheat, potatoes, cereals, roots and tubers sugar, fats and oils.

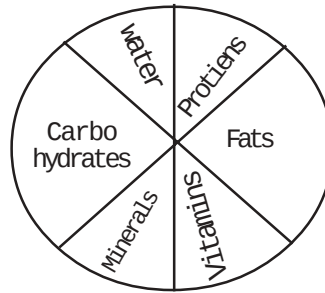
2. **Body building foods:-** These are foods rich in protein, eg:- Milk, eggs, meat, liver, fish, pulses, oilseed cakes.

3. **Protective Foods:-** These are foods rich in Vitamins and minerals and proteins, eg:- Milk, green leafy vegetables. Protective foods are so called because they protect the body against infection, disease and ill health. It may be mentioned that diets in India are generally poor in protective foods.

A balanced diet must contain foods from the above three groups:-

Constituents of Food:-

The dietary constituents of food are shown below:-



Dietary Constituents of Food:-

Proteins, fats and carbohydrates are called "Proximate Principles" or energy yielding foods. Together with water. They form the bulk of food. The human body has the following approximate.

Table - I

Composition of Human Body.

	Percent.
Water	63
Protein	17
Fat	12
Minerals	7
Carbohydrates	1

Classification of foods:-

There are many ways of classifying foods:-

- 1 Classification by Origin
 - a) Foods of animal origin.
 - b) Foods of vegetable origin.
- 2 Classification by Chemical composition:-
 - 1) Proteins
 - 2) Fats
 - 3) Carbohydrates
 - 4) Vitamins
 - 5) Minerals.
- 3 Classification by predominant function:-
 1. Body building foods Eg. Milk, meat, poultry, fish eggs, pulses, groundnuts, etc.,

2. Energy giving foods Eg. Cereals, Sugars, Roots, and tubers, fats and oils.

3. Protective foods:- Eg.: Vegetables, fruits, milk.

4 Classification by nutritive value:-

1. Cereals and millets.
2. Pulses (Legu mes)
3. Vegetables.
4. Nuts and oilseeds.
5. Fruits.
6. Animal foods.
7. Fats and oils.
8. Sugar and jaggary.
9. Condiments and spices.
10. Miscellaneous foods.

Nutrients

Nutrients are organic and inorganic complexes contained in food. There are about 50 different nutrients which are normally supplied through the foods we eat. Each nutrient has specific functions in the body. Most natural foods contain more than one nutrient. These may be divided into

1. Macronutrients:- These are proteins, fats and carbohydrates which are often called "Proximate Principles" because they form the main bulk of food. In the Indian dietary, they contribute to the total energy intake in the following proportions.

Carbohydrates	65-80 %
Fats	10 - 30 %
Proteins	7-15 %

2. Micro Nutrients :-

These are vitamins and minerals they are called "Micro Nutrients" because they are required in small amounts which may vary from a fraction of a milligram to several grams.

Carbo hydrates

Energy foods and calories:-

Carbohydrates are composed of carbon, hydrogen, and

oxygen. A continued need of the body is for energy foods are fuel for the body to work rather like diesel is fuel for a bus to run. The harder you work, the more energy food you need, but even at rest. The body still uses fuel for breathing and for the heart beating. By burning fuel foods for energy, heat is also produced. In cold weather you can keep warm by exercise and eating more energy foods.

They are cheapest sources of energy and are the basis of our diet. Indian diets are characterised by excessive amounts of Carbohydrates, providing as much as 90 % of the required calories. In a balanced diet, carbohydrates provide 50-60% of total calories taken in excess, the carbohydrates are converted into body fat.

The kind of staple food we eat depends on our habits and what is available, staple foods include:

1. Cereals and grains: -

Wheat, made into bread, Chappati etc., Rice, jowar, maize, and ragi (The millets)

2. Starchy Vegetables, Potatoes, Sweet potato, and tapioca.

3. Starch fruits, banana, bread fruit,



Sugars, honey and jaggary provide extra energy. These too are carbohydrates foods.

Body requirement :-

Carbohydrates requirement for children 60-250 grams.

Adolescents 400 grms.

Men 300 - 700 grms.

Womens 240 - 540 grms.

Proteins

The word "Protein" means that which are essential for growth; for making different kinds of cells, tissues and organs of the human body. Proteins are composed of carbon, hydrogen, oxygen, nitrogen and sulphur in varying amounts. From this we can understand why pregnant women, nourishing mothers, babies and children all need to have a lot of proteins in their diet. Those who are injured or have some disease which attacks body cells, need extra protein for repair of tissues that have been harmed. Every one needs protein because our bodies are made up of living cells which wear out and need replacing.

For Eg. :- The life of red blood cells is only about 120 days. New red blood cells need to be produced constantly.

Proteins differ from carbohydrates and fat in the respect that they contain nitrogen. Proteins are made up of simple substances called amino acids. These are building blocks of proteins.

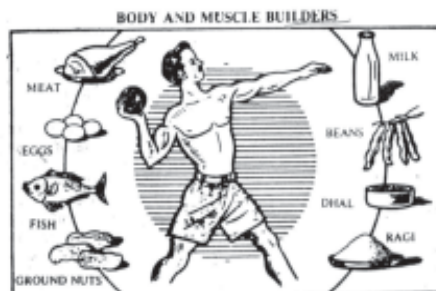
AMINO ACIDS: -

There are many different proteins and each one is made up of a group of about 100 amino acids. There are about 20 different kinds of amino acids. We can think of them as beads of different colours joined together to make a chain or necklace (a protein). A protein is like a necklace rolled into a ball, but so small we cannot see it.

When we swallow a protein food, first the proteins separate, then the protein chain is broken and amino acids separated. Inside the body the new proteins are formed by joining up the amino acids in a different order, according to needs of the body.

The body can make some amino acids out of others, and these are called "non essential" amino acids. About 8 amino acids cannot be made by the body and must be taken in our food. These 8 are the essential amino acids.

- | | | |
|---------------|-------------------|--------------|
| 1. Isoleucine | 2. Leucine. | 3. Lysine |
| 4. Methionine | 5. Phenylalanine. | 6. Threonine |
| 7. Tryptophan | 8. Valine. | |



Functions:-

1. **For growth and development :-** They furnish the building material
2. **For repair of body tissues and their maintenance:-** It has been shown that the body proteins are constantly being broken down. They have to be replaced for which fresh protein make is required.
3. **For synthesis of antibodies, enzymes and hormones:** Antibodies, Enzymes and hormones contain protein. The body requires protein to produce them..

Sources :-

There are 2 main sources of protein.

1. **Animal sources :-** Milk, eggs, meat, fish, etc.,
2. **Plant sources :-** Pulses, cereals, nuts, etc., other chana, soyabean etc.,

Proteins content of some foods

Food Protein (G. per 100 gms. of food)

Animal Foods:

Milk	3.2-4.3
Meat	18.0-26.0
Egg	13.0
Fish	15.0 - 23.0

Plant foods:

Cereals	6.0 - 13.0
Pulses	21.0 - 28.0
Vegetables	1-4
Fruits	1-3
Nuts	4.5 - 29.0
Soya bean	43.2

Others:-

Oils and fats	Nil
Sugar and jaggary	Nil

Protein requirements:-

The requirements of proteins as per body weight. The Indian Council of Medical Research in 1981, recommended 1.0 g protein 1 kg. body weight for an Indian adult.

Fats:

Fats are composed of Carbon, hydrogen and oxygen. They are composed of smaller units called fatty acids. Some fats such as ground nut oil, gingerly oil are liquid at room temperature.

Classification of Fats

1. Saturated fats. Eg. Animal Fats.
2. Un saturated fats. Eg. Vegetable oils and fats.

Current research indicate that excessive intake of saturated fat is harmful to the body.

Functions:-

Fats Serve the following functions.

1. Fats provide energy. A gram of fat provide 9 calories of energy i.e., twice the number of calories from carbohydrates and proteins.
2. Fats are carriers of fat soluble vitamins. Eg. : Vitamine A,D,E, and K.
3. Dietary fats supplies essential fatty acids are needed for growth and maintenance of the integrity of the skin.
4. They maintain our body temperature.
5. Fats provide support for many organs in our body such as heart, kidneys, intestine etc.
6. Foods containing fats are tasty.

Sources

Dietary fats are derived from 2 main sources.

1. Animal sources :- These are Ghee , butter, fat of meat, fish oil etc.
2. Vegetable sources :- Various vegetable oils such as ground nut oil, ginger oil , mustard oil, cotton seed oil and coconut oil.

Fat requirements:-

Adult requires 20-60 grams 1 day.

Calories are used to measure energy. We use calories to measure how much energy is there in certain foods. We use calories also to measure how much energy a person needs(energy requirements)

Nutrients that provide calories, and the amounts are as follows:-

One Gram of Carbohydrate provides 4 calories.

One Gram of proteins provides 4 calories.

One Gram of fats provides 9 calories.

Note that proteins are not including in "energy foods" because their main use is for body - building; what is left over from requirements for body building and repair can be used as fuel for energy.

Here are some foods, and the calories provided per 100 gms.

Cow's milk	65	potato	99
Buffalo's milk	117	Wheat Bread	238
Jaggery	383	Wheat Flour	348
Honey	320	1 Chappati	124
Sesame seeds	564	Rice	345
Groundnuts	549	Ragi	331
Banana	153	Maize	342
Tapico	159	Bajra	360
Sweet Potato	132		

Calorie Requirements (energy requirements)

A baby below 6 months needs 120 Calories per kg. of body weight per day.

A baby from 7 to 12 months needs 100 calories / Kg.

A Child 1-3 years old needs about 1200 calories per day.

A child 4-6 years old need about 1600 calories per day.

A child 7-9 years old needs about 1800 calories per day.

A child 10-12 year old needs about 2100 calories per day.

An Adolescent girl 13-19 and boy 13-15 - 2300 calories per day.

An adolescent boy 16-19 years need 3000 calories per day.

A man moderately active needs 2800 calories per day.

A woman an moderately active need 2200 calories per day.

A women who is pregnant need extra 300 calories per day.

A women who is lactating needs extra 500 calories per day.

TABLE OF FUNCTIONS, SOURCES AND DAILY REQUIREMENTS OF CARBOHYDRATES , FATS AND PROTEINS

	Functions	Sources	Daily Require-	Grams	Remarks
CARBOHYDRATES :					
1	Energy or fuel for the working of the body.	Cereals: Rice, wheat, Jowar, Maize, ragi.	Infant below 6 months	60-80	Carbohydrates requirement for Children is based on age. In adults requirement depends on age, body weight and daily. Activity, Adults should aim to keep the body weight steady. In pregnancy and lactation, more carbohydrates is required.
2	Produce Heat .	Sugars: White sugar, jaggery, honey, glucose	Infant 7-12 months	100-150	
3	Help in use of fats and proteins	Root vegetables : Potato, sweet potato, tapioca	Child 1-3 years	160-200	
4	Cellulose (Fibre) prevents constipation	Fruits: Banana, breadfruit.	Child 4-6 years	200-250	
			Child 12 years	400	
			Adolescent boys	450-550	
			Man	300-700	
			Woman	240-540	
FATS:					
1	Concentrated energy source	Best sources for good health are : Sesame (gingelly) oil.	Infant below 6 months	10-30	Animal fats contain cholesterol. and so they are not good for middle aged persons, who may develop heart diseases. could have skimmed milk instead of whole milk.
2	Absorption of Carotene and Vitamins A,D,E, and K.	Sunflower seed oil, cottonseed oil soyabean oil.	infant 7-12 months	35-40	
3	Makes food tasty and satisfies the appetite.	Other sources : ground nut oil coconut oil, mustard oil.	Child below 6 years.	20-40	
4	Fast stored in the body protects from cold, and is a reserve source of energy.	Vanaspathi, butter, ghee, cheese, milk, curds, fish, and fatty meat.	Child 12 years.	50	
			Adolescent boy	30-70	
			Man	20-60	
			Woman	20-40	
			Lactating woman	20-60	

TABLE OF FUNCTIONS, SOURCES AND DAILY REQUIREMENTS OF CARBOHYDRATES , FATS AND PROTEINS

Functions	Sources	Daily Requirements	Grams	Remarks
PROTEINS				
1. For growth (body-building)	Animal proteins (best for body building): milk.	Infant below 6 months about	2 gm / kg.	More protein compared with weight is required for those who are growing or nourishing a child.
2. Repair of worn out tissues and healing of wounds.	Curds, Cheese, Egg, Fish and meat Vegetables proteins:	infant 7-12 months about Child 1-3 years. Child 4-6 years.	1.5 gm./kg. 17-20 22	Less protein for weight is required for adults.
3. For the blood, to make haemoglobin and blood proteins	Groundnuts and soybeans are best	Child 7-9 years, 33 Child 10-12 years 41		
4. For making enzymes (for digestion) and hormones.	Cereals, pulses, (dhals and grams) legumes(peas and beans) oilseeds.	Man 45 Woman	55	

Vitamins:-

Vitamins are complex chemical substances they are required by the body in very small amounts. They do not yield energy like fats and carbohydrates. They are vital for the very survival of man. They protect the body against ill health, infection and disease. Since the body can not manufacture vitamins, they must be supplied through the diet. A well balanced diet almost meets the daily requirement of vitamins needed by the body.

Classification :-

Vitamins are classified into two broad groups as below:-

- 1 Fat soluble vitamins.
 - a) Vitamin A or retinol.
 - b) Vitamin D
 - c) Vitamin E
 - d) Vitamin K
- 2 Water soluble Vitamins.
 - a) Thiamine (Vitamin B1)
 - b) Ribo Flavin (Vitamin B2)
 - c) Nicotinic Acid (Niacin)
 - d) Pyridoxine (Vitamin B6)
 - e) Pantothenic Acid
 - f) Folic acid
 - g) Vitamin B12
 - h) Ascorbic acid (Vitamin C)

Vitamine A (Retinol)

It is a fat soluble vitamin. Its chemical name is "retinol" 8% of children between the ages 6 months and 6 years had vitamin A deficiency signs. In some countries, including India vitamin A is a major cause of preventable blindness.

If a person does not have enough vitamin A he gets night blindness, then dry eye, and may become blind.

Functions:-

1. It is needed for normal vision. and health of the eyes.
2. It is needed for health of the epithelial tissues (skin, mouth) of the

body.

3. It is connected with growth, especially skeletal growth.
4. It is anti - infective i.e, it protects the body against microbial infection.



Sources :-

1. Animal Sources :- Butter, ghee, egg, milk, liver and fish are good sources of vitamin A.
2. Vegetables and fruits:- The cheapest sources of Vitamin A is green leafy vegetables such as spinach, amaranth, coriander, drum-stick-leaves.
Vegetables like- Carrots, pumpkin, and ripe fruits are mangoes, papaya, tomatoes are also rich sources.

The foods contain carotene content are converted into Vitamin A in the walls of the small intestine and after wards stored mainly in the liver .

3. Fish liver oils 1 table spoon of cod or shark liver oil supplies about 6,000 IU of vitamin A.
4. Synthetic:- Indian lemon grass has been established in the country.

Daily Requirement :-

1 IU of vitamin = 0.3 Wg. retinal.

Daily requirement of vitamin A is 300-750 micrograms.

Too much is harmful

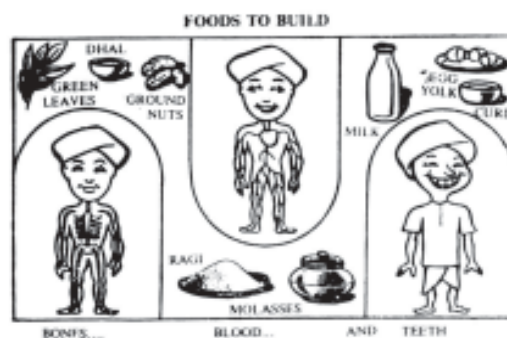
Vitamin- D

Vitamin D occurs in many forms, but the important ones from the human nutrition are:-

1. Vitamin D₂ or ergocalciferol does not occur in nature.
2. Vitamin D₃ or Cholecalciferol occurs widely in animal fats and fish oil.

Functions:-

1. It is required for the formation of the healthy bones and teeth. It has a direct action on the mineralization of bones.
2. It promotes the intestinal absorption and utilization of calcium and phosphorus.
3. Permits normal growth.



Sources:-

1. Sunlight:- It is an important natural source of Vitamin D. The provitamin (7-dehydro cholesterol) is normally present in the skin is converted into the vitamin D₃ by the action of ultra violet rays of the sunlight. The rate at which Vitamin D is synthesized in the skin depends upon the exposure of the body to the sun and the amount of pigment (melanin) in the skin. The heavier the pigment, the lesser the synthesis.

2. Foods:- Egg (yolk), liver, fish, fish oil, milk, ghee, groundnut oil, and butter.

Daily Requirement:-

- Adults need 2.5 micrograms (100 IU) per day.
- Pregnant, lactating mother and growing children need 400 IU (10 micrograms) per day.

Vitamin D is stored in the body. It takes excess amount can

produce hyper vitaminosis D such as nausea, vomiting, loss of appetite, excessive urination etc., soft tissue like kidney, lungs and heart can be classified leading to death.

Vitamin E (Tocopherol)

It has Antiserility factor vitamin E is widely distributed in foods. It is available in small quantities in meats, fruits and vegetables. By far the richest sources are vegetable oils (Eg. sunflower oil, cotton seed oil, safflower oil). It is available in many foods, the human on balanced diet does not suffer its deficiency.

Daily requirement in adults is 0.8 - 1.4 Mg. per 100 mL., the current estimation of Vitamin E is 10 mg per day for adult.

VITAMIN K (Naphthoquinone)

It is an antihæmorrhagic factor vitamin K occurs 1) fresh green vegetables and (2) Fruits. It is also synthesized to some extent by intestinal bacteria. This vitamin is necessary for proper clotting of blood. So it is used for the prevention and treatment of bleeding vitamin K is also given to patients. If they are known to suffer from defects of absorption due to lack of bile salts or other types of malabsorption.

Normal Daily Requirement of Vitamin K for adults 0.03 mg./kg body weight.

VITAMIN C (Ascorbic acid)

It is known as Ascorbic acid. It is a water soluble vitamin. It is most unstable of all vitamins and rapidly destroyed by high temperature, oxidation, drying or storage.

Functions:-

1. It is required to form collagen in the protein substance that binds the cells to gather. If this substance is not formed healing of the wounds will be delayed.
2. Bleeding phenomena appears on vitamin C deficiency.
3. It helps to increase the absorption of iron.
4. It helps to increase the general resistance of the body to fight infections.

Sources:-

1. Fruits : all fresh, fruits contain vitamin C, Amla gooseberry is one of the richest source, Guavas, lime , orange, papaya etc.

2. Vegetables :- All green leafy vegetables are richest source of vitamin C eg. Tomatoes, amaranth, cabbage, spinach, bitter guard, brinjal, califlower, dumstick leave etc. roots and tubers, potatoes, radishes are contained small amounts. Sprouting pulses are another source, bengal gram, green gram etc.

3. Animal Foods:- meat and milk contain very small amounts.

Daily requirements:-

The values recommended in India are as follows:

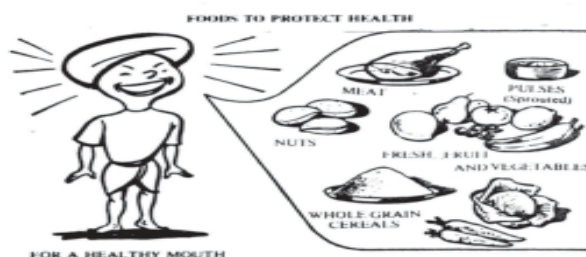
Adults - 40-60 Mg. per day.

Pregnancy - 40-60 Mg. per day.

Lactation - 80 Mg. per day.

Infants and children 20-40 mg per day.

Vitamin B1:-(Thiamine) :- It is a water soluble vitamin . It is important member of the B group of the vitamins. It is relatively stable at heat. But is destroyed in neutral or alkaline solution.



Functions:-

1. It plays an important part in Carbohydrate metabolism.
2. It is essential for the proper functioning of the nervous system.

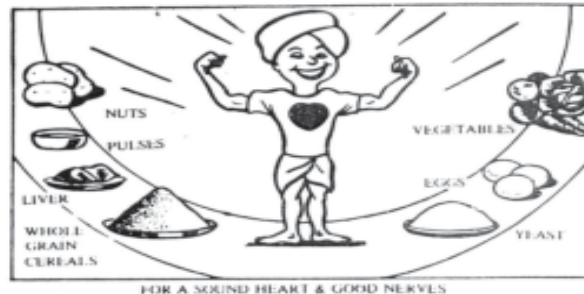
Sources:-

Richest in unmilled cereals, pulses and nuts (Ground nut)

- Cereals like wheat, rice.
- Meat, fish, eggs, liver, dark green leafy vegetables, fruits, dried yeast etc.

Daily Requirement:-

- 1-2 Mg. per day or 0.5 mg. per 1000 K.Cal. of energy intake.

**Ribo Flavin: -**

Daily requirement is 1-2 mg or 0.6 mg. per 1000 K.cal. intake.

Functions: -

1. It involves protein, fat & Carbohydrate metabolism.
2. Healthy eyes and mouth.

Sources: -

- Milk and milk products, eggs, liver, green leafy vegetables are good sources.
- Wheat, millet and pulses are fair sources.
- Rice is a poor source.
- Germinating pulses also furnish riboflavin.
- Riboflavin is synthesised by bacteria in the large intestine.

Niacin or Nicotinic Acid: -

1. It is required by the body for the utilization of carbohydrates and tissue respiration.
2. For the healthy skin and mucus membrane.
3. For healthy nervous system.

Sources: -

- Rich in - Whole grain cereals, nuts, pulses, meat, liver and chicken, dried yeast, ground nuts.
- Poor source in maize.

Daily Requirements: -

20 mg. per day or 6.6 mg. per 1000 calorie intake.

Pyridoxine or B6 :

It plays an important role in the metabolism of amino acids, fats and carbohydrates.

Daily requirements:-

1.5 - 2 mg per day.

Sources:-

Liver, meat, fish, whole cereals and legumes.

Folic Acid :

- It is essential for DNA Synthesis.
- Needed for making red blood cells

Sources:-

- Green leaves, vegetables, liver, egg, pulses, cereals, nuts, whole grains and oil seeds.

Daily Requirements:-

100 micro grams per day.

- pregnant women needs - 300 micrograms
- For lactating women additional 150 micrograms.
- Children need 100 micrograms.

Vitamin B12

- It is necessary for synthesis of DNA.
- It is required for carbohydrate, fat and protein metabolism.
- It is used for making red blood cells.

Sources:-

- Liver, eggs, fish and milk.

Daily requirement :-

One microgram for adult.

MINERALS

At first minerals are in the rocks and are washed away from rocks into the soil. Minerals in the soil and water are absorbed by plants. Plants are eaten by animals and human beings. Therefore we get minerals from 3 sources water, plants and animals.

In our body contains 24 minerals, all of which must be obtained from foods we eat:

1. Calcium:-

This mineral is present in large amount in our bones and teeth. It forms 1.5 -2 % of the body weight.

Daily requirement :-

- An adult requires 0.5 mg per day.
- During pregnancy and lactation one gram per day is needed.

Functions:-

1. Formation and maintenance of bones and teeth.
2. For coagulation of blood.
3. For regulation of Neuromuscular irritability and functioning of nerves.
4. Strengthen of capillary walls.
5. Contraction of heart muscles and skeletal muscles.

Calcium needs to be in correct proportion with phosphorous. Vitamin D & C are also needed for calcium to be fully used.

Sources: -

1. Best source is milk.
2. Fish, eggs, green leafy vegetables and fruits.
3. Ragi, bajra, sesame seeds and wheat.
4. Small dried fish is good source.

PHOSPHOROUS

1. with calcium to form bones and teeth.
2. For brain and nerve formation.
3. For Carbohydrate and fat metabolism
4. For all cells in the body.

Daily Requirements:-

300 - 1200 mg. per day.

Sources: -

- Most foods contain phosphorous especially milk, meat, fish, eggs, nuts, grains and green leaves.

IRON

The total amount of iron present in the body is between 3-4 gms 75% is found in blood.

Function: -

1. Iron is required for the formation of hemoglobin.

2. The central function of iron in the body is "Oxygen Transport".

Daily Requirement:-

The Values are recommended in India are as follows:-

Adult man	-	25 mg daily.
Adult women	-	35 mg daily
Pregnancy	-	40 mg daily
Lactation	-	32 mg daily.

Deficiency of Iron cause anaemia. Vitamin C helps in the absorption of iron.

Sources:-

- Animal Sources are :- liver, kidney, meat, egg, yolk.
- Plant : Vegetables, cereals, pulses, dark green leafy vegetables, ragi, bajra, jaggery etc.,

SODIUM CHLORIDE

We need salt for the fluids in the body and to help to regulate the fluid balance. People add salt to food to make it taste better, but there is enough salt already in most foods for the needs of the body. However, in hot weather a great deal of salt is lost from the body in sweat and extra salt should be taken to prevent muscle cramps and heat exhaustion. In the case of dehydration the salt as well as fluid lost must be replaced.

POTASSIUM

It is needed for

1. Regulation of PH (Reaction) of tissue cell content.
2. Regulation of osmotic pressure of cell contains.
3. Relaxation of the heart muscle.

Potassium is lost from the body in vomit and diarrhoea and so this mineral is often included in rehydration fluid.

Potassium requirement is 1000 -2000 mg. daily.

Sources:-

It is present in most foods including cereals and millets, pulses, nuts, oil seeds, vegetables and fruits, milk, meat, fish and

liver.

IODINE

Iodine is needed for the functions of the Thyroid gland which is situated in the neck to form thyroxine hormone.

Sources:-

- Richest source of Iodine is crude common salt (prepared from sea water), sea fish and cold liver oil, smaller amounts occur in other food stuffs.

Daily Requirement :- 150 mg. per day.

FLUORIDE

It is found mostly in bones and teeth.

Sources:-

- Drinking water, sea fish, Cheese, tea.

Daily Requirement :-

- The optimum level of fluoride in drinking water is 0.5 - 8 mg per ltr.

WATER

Water basic human requirement. Water makes up two thirds of the body weight or 60 % of the human body weight is due to water. Water is distributed in 3 compartments.

1. inter cellular fluid - 50% of body weight.
2. Interstitial fluid - 15% of the body weight.
3. Blood this account for about 5 % of the body weight.

Sources:-

- The human body derives water from 2 main sources as

1. Drinking water.
2. Food.

Functions:-

1. Water is an essential constituent of many vital body fluids eg. blood, lymph, CSF.
2. It assists in the regulation of body temperature.
3. It helps in the transport of nutrients within the body.
4. It is important in building and repair of body tissues.
5. Maintain the fluid balance in the body.
6. It is utilized in many body process eg: . Digestion, absorption and

elimination of body wastes.

Besides these water is needed for bathing washing and various other activities.

Water loss from our body is :-

1. From kidneys - by means of urine.
2. By the skin - as sweat and perspiration.
3. By the lungs in the expired air.
4. Minor Degree by the faeces from intestine.
5. Lactating women in the milk.

Requirement :-

- A normal healthy person needs to drink on an average about 6 glasses of water per day.
- We can take fluids in the form of water, milk, soups and sambar, juices and other liquids.

Extra fluids need to be taken :

1. In summer time, and in the case of fever, to make up the loss in sweating.
2. In the case of vomiting or diarrhoea. Infants may die of dehydration if the loss is not made up by giving enough fluids.

CELLULOSE :-

This means the indigestible parts of foods. It includes the outer husk of whole cereals and pulses, also the skins, seeds and fibrous parts of fruits and vegetables.

It is good to include some cellulose in the diet. It increases the bulk of faeces in the bowel and helps to prevent constipation.

SUMMARY

- To know the relation of nutrition to health.
- The health worker knows the functions of nutrition.
- The classification of foods are Carbohydrates, fats, proteins, vitamins and minerals..
- Carbohydrates are energy giving foods.
- Fats are body building foods.
- Proteins are body protecting foods.

- Vitamins are vital elements to body.
- Types of vitamins are fat soluble and water soluble.
- Minerals essential elements for the maintenance of the body and structures of the body.
- Water and Cellulose are important basic requirement for functioning of the physiology of the body.

QUESTIONS

1. Write the definition of nutrition?
2. Write in detail about relation of nutrition to health?
3. Write the classification of nutrients?
4. Write the functions of proteins, fats and carbohydrates?
5. Write the functions of Iodine and calcium?
6. What is the importance of water and cellulose?
7. What are minerals ? List the types of minerals? Write in details about Iron?
8. Name the vitamins ? Classification and write in detail about vitamin A?

UNIT - II**NUTRITIVE VALUE OF FOOD STUFFS:**

In the previous lessons, we learned about various nutrients required by the body. We have obtain these nutrients from the foods we eat.

On the basis of their nutritive value, food stuffs, have been classified into the following groups:

- 1) Cereals and millets
- 2) Pulses
- 3) vegetables
- 4) Fruits
- 5) Milk and milk products
- 6) Meat, fish and eggs
- 7) Fats and oils
- 8) Sugar and jaggary
- 9) Condiments and spices
- 10) Beverages

1) Cereals and Millets:

The cereals form the bulk of the daily diet of people. The cereals & millets available in India are:

Cereal:- Rice, wheat

Millets:- Maize, Jowar, Ragi, Bajra.

The Rice and wheat are most important cereals. They contain vitamins, mainly Vitamin B, Minerals, proteins and fat. Too much of washing may loose some vitamins. Millets are rich in Charbohydrades, Ragi is a rich source of calcium and yellow maize contain carotene.

2) PULSES:

The next imporant to cereals in India are pulses. The various grams, dhals, peas and beans, Redgram, greengram, black gram, Bengal gram pulses are rich in proteins. They also called as "Poor man's meat". Pulses are also good sources of B-group vitamins & minerals.

- Sprouted grams are good source of Vitamin - C.

- Soyabean has contain 40% of protein. Khesari Dhal - consumption of Kesari dhal over prolonged period causes paralysis of lower limbs.
- Ground nut: Ground nuts are more grown in India. They are rich fat and ptoein and also rich in nicotinic acid, thiamine & riboflavin. Seeds are used for oil extraction and the residue for animal food.

3) VEGETABLES:

Vegetables are classified into 3 groups:

1) Dark green leafy vegetables:

These are the cheapest nutritious diet among protective foods. They are very valuable for the human nutrition. There is a variety of green leafy vegetables available in the market. They are palak (Spinach), amaranth, sourgreen, cabbage, methi etc.

These are rich in source of carotene, calcium, riboflavin, folic acid and vitamin - C. They contain cellulose which acts as roughage and prevent constipation.

A daily intake of 100 grams of leafy vegetables are recommended.

2) Roots and Tubers: They are tapioca, carrot, potato, radish, beetroot and onions.

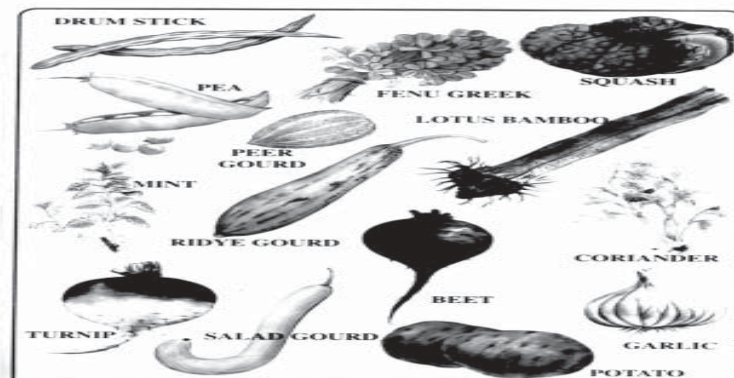
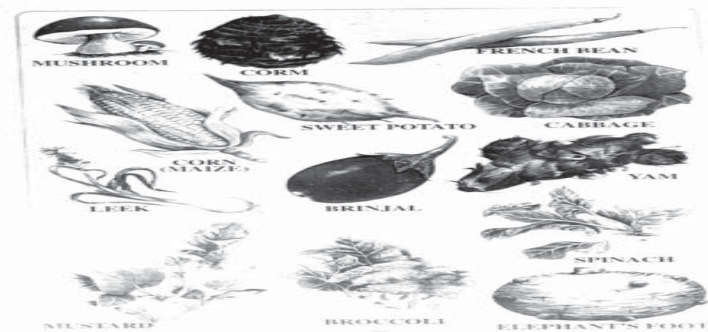
- Potato & tapioka contain plenty of starch and fairly rich in proteins. They are used as staple foods to provide energy.

- Carrots are rich in carotene.

- The young leaves of root vegetables are very nutritious and should be eaten also. They are rich in calcium, potasium and some vitamins. A daily intake of 75 grams of root vegetables are recommended.

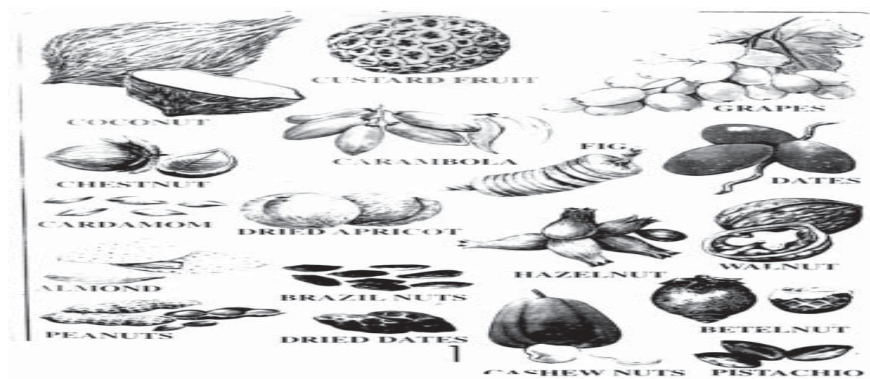
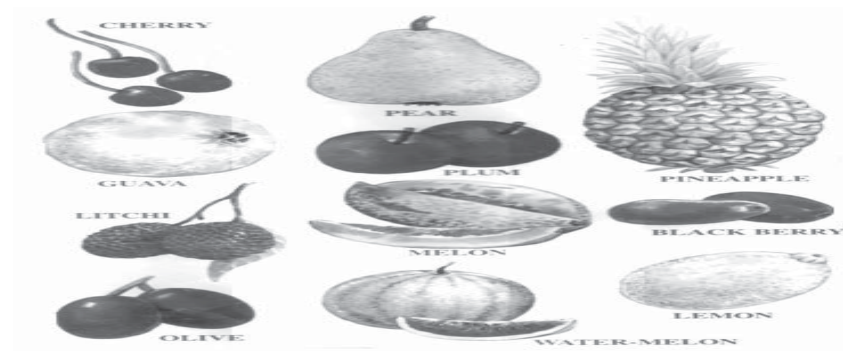
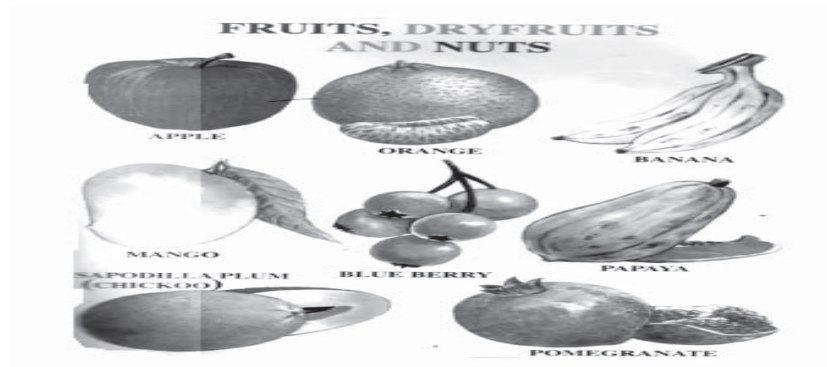
3) Other Vegetables:

All the other vegetables such as brinjals, tomatoes, cauli-flowers, drumstics, gourds, ladies fingers, pumpkin are rich source of vitamin - C and minerals. Daily 75 grms. of vegetable should be taken.



4) Fruits :

They are protective foods. All kinds of fruits are rich source of vitamin-C, carotene and Minerals. So they can be eaten fresh and raw. The Indian goose berry (amla) and guava are very rich source of Vitamin - C. Some fruits such as mango and papaya are rich in carotene. Sitaphal are rich in calcium. There is not much vitamin - C in apples, grapes, pears and bananas . Daily intake of 85 grams of fresh fruits are recommended.



5) Milk and Milk products:

Milk is the most complete or wholesome food among all foods. It contains the different nutrients in proper proportions. It is rich in calcium which is used for growth and development and maintenance of health. But it contains very little iron and only

small quantities of vitamin-C and B Infact, milk is only food for infants upto the age of 6 - 10 months.

	Human Milk	Cows & Goat Milk	
Buffalo Milk			
1) Protein	2 %	4 %	5 %
2) Carbohydrates	6 %	4 %	5 %
3) Fat	4 %	4 %	8 %

Nutritive value:

Milk contain all the food factors:

- 1) Proteins : Buffalos milk is rich in proteins than cows and human milk.
- 2) Fat : Buffalo's milk is rich in fat compare to cows and human milk.
- 3) Carbohydrates : Human milk contain more carbohydrates than cows, goat and buffalo milk.
- 4) Minerals : Milk is rich in calcium and almost all minerals needed by the body.
- 5) Vitamins : Milk is a good source of all vitamin except vitamin - C
A minimum intake of 200 grms of milk by vegetarians and 100 grams by non vegetarians is recommended.

Pre school children, pregnant & lactating mothers also need greater amounts of milk in their diet.

Milk products: The common milk products consumed in this country are:

- a) Curds (Dahi) : Nutritive value of curd is similar to that of milk. It is prepared from milk.
- b) Ghee: is 100% milk fat & contains 1,000 to 2,000 IU of vitamin-A per 100 grams & also vitamin - D it is much used in Indian homes.
- c) Butter : Contains 82% of milk fat, a trace of proteins and rest of water it contains vitamin A & D.
- d) Cheese: composition depends upon the type of milk used. It contains high percent of milk fat & protein.
- e) Koa : It contains all milk solids.
- f) Buttermilk: It is good for health due to less fat.
- g) Whole milk powder : It contains all nutrients except vitamin - C which is destroyed during drying. When 7 parts of water are added to the milk powder, the milk has almost the same nutritious value as fresh milk and can be used in infant nutrition.

h) Skimmed milk powder : In this fat is removed. However good source of protein, calcium and water soluble vitamins like B-complex and minerals. It is not suitable for babies due to lack of fat and vit. A & D. UNICEF & CARE have distributed more tons of milk powder to children and expected mothers in this country. Vegetable milk: Milk from soya beans, groundnuts, coconut are called vegetable milk.

Animal Foods:-

1. Meat :- It is very nutritious. It is good source of vitamin B and protein. It is rich in iron and phosphorus, riboflavin and niacin.
2. Fish :- It is rich in proteins. It is a fair source of B vitamins. Fatty fish contain vitamin A and D. Large fish contain phosphorus. Small fish eaten with bones are good source of calcium. Sea fish contain Iodine.

3. Egg :- It contains all food factors except Carbohydrate.

The egg yolk contains protein fat, vitamin A and D and B vitamins.

4. Liver:- It is rich in proteins. Vitamin A and B vitamins including B12 which is necessary to prevent pernicious anaemia.

7. **Fats and Oils:-** These are source of energy and essential fatty acids. It makes food tasty and palatable.

Vanashpati (from ground nut oil) Ghee and butter are rich sources of vitamin A. All vegetable oils are good sources of vitamin E.

8. **Sugars and jaggery** : It includes cane sugars, glucose and honey. These are rich in carbohydrates and provide energy. Honey and jaggery contain iron and some minerals and vitamins. So these are more nutritious than white sugar and glucose.

9. condiments and spices :-

These include pepper, cardamom, ginger, turmeric, tamarind, chillies, cloves, saffron, coriander, curry leaves, cinnamon, garlic, asafoetida etc. Spices are used to make the food tasty, stimulating the appetite and helping in digestion. Spices have antibacterial properties same are used in preserving foods and making pickles.

10. **Beverages:-** These are classified as follows.

1. Alcoholic : Whisky, rum, brandy, toddy.
2. Non - Alcoholic beverages : Coffee, tea, cocoa.
3. Soft drinks :- Aerated water, cola sugar cane, fruit juices, lemonade, coconut water.

1. Alcoholic Beverages:- The Constituent present in alcoholic beverages is ethyl alcohol. Beer and toddy contains about 5 %, spirit such as Brandy, wine about 10-25 % and spirits such as whisky, gin and rum contain 45 % of alcohol. Beer contain a little quantity of B-vitamins.

Alcohol contains 7 calories per gm, but it is very harmful to health in the following ways.

- a. Alcohol irritates the mucosa and cause stomach and duodenum ulcers and leading to various complications.
- b. It also affect the functioning of the liver and causes cirrhoses of liver in chronic cases.
- c. In chronic cases, nervous system affected and cause a form of paralysis.

People should also realise about the bad affects of alcohol on their behaviour. Alcohol is a habit forming and chronic alcoholics result great harm to their total life and their family.

2. Non alcoholic Beverages:-

- Coffee contain caffeine which stimulate the nervous system.
- Tea when sugar, milk is added to tea, it is harmless compared and provide energy also.
- Cocoa is mixed with coffee or tea which is rich in fat.

3. Soft Drink:-

Fruit juices, coconut water, sugar cane juice, lemon juice, carbohydrate drinks are containing fair quantity of vitamin C and small quantities of B vitamins and minerals and provide energy also. They contain small quantities of minerals and vitamins.

Improving diets with locally available stuffs. :-

First the health worker should investigate, analyse and make plans in co-operation local handlers in order to help the community to improve their nutrition.

The Health worker investigates the following things:-

1. How much malnutrition present in the community and the causative factors.
2. What type of foods are included in the diet of the family, preparation and serving also.
3. Is there cattle or poultry are kept and whether foods are sold or only keeping for family to eat.
4. which families have fields, kitchen gardens and what type of

foods grow well in the area.

5. Local customs and habits related to the selection, preparation, cooking and serving of food, also customs related to infant feeding and weaning.
6. The appearance and names of locally available food stuffs both cultivated and growing wild.
7. The cost and seasonal availability of food stuffs.

This investigation may be carried out:-

1. By means of simple dietary survey.
2. By observing the foods which are sold in the market.

Then prepare a sample group balanced diet according to the group i.e. infants, pre school children, pregnant woman, and lactating mother.. The plan of meal should be based on locally available low cost food stuffs.

At first people may reject any suggested change in their dietary habits. With patient and persistence of your health education you may expect a gradual improvement and can see better results in family health.

Applied nutrition programme:-

The nutrition of the individuals, families and the community can be improved by many possible ways.

Kitchen Gardens, and poultry, keeping are the important areas in applied nutrition programme.

Some of the suggestions given below are :-

Better use of land to produce and grow more food:-

In India each crop like coffee, cotton, or tobacco are grown in much land to earn more money. Those crops had no nutritious value.

Lands which could be used for food crops may also be used in some places to grow for fire wood trees.

There is a need to cultivate more land and grow food crops of better quality of means of :-

1. More land should be irrigated.
2. Hilly places should be terraced.
3. Crops should be rotated.
4. By using good quality of seeds.

FOOD SOURCE LIST: -

Food source	Protein	calcium	iron	carotene/vitamin A	cost	Seasonal availability.
1. Rice	+	-	-	-	6 Rs. / kg.	All year.
2. Ragi	+	+++	+	-	Rs. 8 / kg.	"
3. Bengal gram	++	++	++	-	Rs. 28 / kg.	"
4. Ground nut	+++	+	+	-	Rs. 5 / Kg.	"
5. A maranth leaves	+	++++	++++	+++++	Rs. 15 / kg.	Dec.-Feb, july-Sep.
6. Yellow pupkin	-	-	-	+	Rs. 2/kg.	Dec - Feb.
7. Beet root	-	++	-	-	Rs. 6/kg.	Oct - Mar.
8. Bitter gourd	-	-	+	-	Rs. 6 kg.	Oct. - Dec.
9. Egg.	+	+	+	+	Rs. 15 day..	All year.

5. Produce the composition of manure.

In some places other cultivations like fish breeding, or bee keeping for producing honey which are valuable foods.

In order to maintain good health, people are encouraged to grow more of the foods which are rich in nutrients, such as ragi, bajra, pulses, ground nut, soyabeans, and dark green leafy vegetables.

Kitchen Gardens:-

The Health worker encourage the families in the community to plant kitchen gardens and eat the vegetables and fruits they grow.

Educate them the value of kitchen gardens as follows:-

1. Fresh fruits and vegetables taste better and are more nutritious.
2. It costs less to feed the family.
3. Sullage water from the house can be used for irrigation.
4. A compost pit can also be made to supply manure kitchen and other waste can be put into it.

5. Gardening is good exercise and helps to remove worries and tensions.

The kitchen garden should be arranged near the house and to the water source, on land that slopes gently for drainage. If the soil is sandy, tank soil should be added, loam soil, which is in between sandy and clay soil, is the best.

According to the space availability the size of the garden may be plan. If there is plenty of space, the size will be depend on time available for working in the garden and the family size and needs.

Kitchen Garden preparation:-

1. Make a compost pit in a corner.
2. Make a fence around the gardens, so that no animal can comes into it.
3. Arrange a drain to carry sullage water from the house. This must be kept clean, so that the water must be flow freely.
4. Form a plan, divide the area into plots for different kinds of vegetables with paths between. Plan also for fruit trees such as papaya, guava and amla.
5. Dig the ground for some extent, remove all the stones.

6. Add plenty of manure, leave it for 2 days, and dig again.
7. Sow good seeds , with plenty of variety. Some plants are best sown in boxes (nurseries) and the seedlings transplanted. When transplanting be careful not to harm the root, and to fix the plant firmly in the soil.
8. Pour water will after sowing and every day or as needed. Waste wate which are coming from bathrooms or kitchen may be used. It can be directed in channels between rows of plants raised on ridges.
9. Stir up the soil often by hoeing to keep it loose plants do not like hard earth.
10. When there is a lot of sunshine, make a temporary shade with news paper or a box.
1. Beware of insects and pests. Use insect killers with care, either as a spray or dusting power. Eg: DDT powder, or Kerosine oil.
12. Make a support with sticks for the plants to climb.

Poultry keeping: -

By keeping poultry the family can have home produced eggs and chicken to help in better nutrition. If the fowls are cared well for and fed well; you can expect to get 150 -180 eggs per hen per year, . White leghorns are the best egg-layers. More eggs will be laid if they are fed with a diet such as .

1. Grains such as paddy, bajra, maize and ragi, 60 gm per fowl per day.
2. Mash, a mixture such as the following.

Rice and wheat bran	-	5 parts	
Ragi flour	-	3 parts.	
Fish meal	-	2 parts	All 60 gms .

per fowl per day.

Ground nut cake	-	1 part
Bone Meat	-	2 parts
Salt	-	alittle

3. Fresh clean water always should be available.
4. Shell grit or limens and always available.
5. Greens or vegetables tops chopped 30 gms.

Poultry should be let out all day, scratching for worms, insects and greens. A good place is a coconut or fruit tree top, where they have shade also. The ground should be kept clean, and the

area fenced for protection.

Poultry should be made conveniently near to the house. It should be airy, easy to clean, and raised on supports above the ground. Perhaps about 25 cm apart should be provided a separate place should be provided for roosting. (hatching of eggs)

For breeding have a good quality male bird. (A male bird is not necessary for egg production alone.)

Baby chicken grow well if given white ants, chopped boiled eggs milk or curds, chopped greens, onions and garlic. Grains and mash should also be available. Get the help of the BDO, Extension Officer or veterinary for vaccination of chickens to prevent diseases, and in the case of sickness among the fowls.

Chickens should be eaten or sold while end.

Summary

1. Nutritive value of food stuffs are very important.
2. Cereals are provide calories and proteins in Indian diet.
3. Pulses and neets, oil seeds are rich in proteins. They also provide fat, minerals and B Vitamins.
4. All the vegetables contain carotene, calcium and all vitamins in rich sources.
5. Milk and milk products are wholesome food. There are rich in calcium and vitamins and proteins.
6. Eggs, meat and fish are very nutritious. They are good sources of proteins.
7. Sugars include cane sugar, glucose, jaggery and honey are carbohydrate foods and provide energy.
8. Beverages are stimulants.
9. condiments and spices are useful in making foods more tasty and stimulating the appetite.
10. Make a list of foods produced locally for family and for cash in come. Estimate the producing costs and the retail cost.

Questions

1. Write the nutritive value of cereals, pulses, nuts and oilseed?
2. Write in detail about the nutritive value of milk and milk products?
3. Write about applied nutrition programme?
4. How the healthworker investigates the locally available food stuffs?

UNIT - III**1. Factors to be considered in planning meals:-**

The advantages in planning meals are :-

1. It helps in the selection of a wider variety of foods.
2. It helps to meet the nutritional requirements of all family members.
3. It is easy to prepare and serve according to menu.

To be effective, meals should be planned for several days at one time.

Factors that influence planning of meals are:-

1. Income
2. Family size
3. Religion,
4. Cultural habits.
5. Occupation
6. Level of knowledge.

1. Income :- What are the requirements, habits or customs of the group. The most important factor for selection of food is a amount of money available to purchase the food. The family depends upon the family income level and in a hostel or institution, upon the total contribution to the food budget.

2. Family Size:- The meals should be plan according to the size of the family. The nutrition of the infants and young children needs special consideration and adjustment according to their needs of growth and development activities and abilities to digest.

3. Religion :- In different religions there are different loss regarding foods which may be for bidden, Eg: Hindus do not eat beef, muslim and Jesus do not eat pork. According to their religious laws, the meal should be planned.

4. Cultural Habits:- Choice of food varies with the custom of different groups. The meal should be planned to meet the needs of vegetarians, non vegetarians, vegetarians who eat egg, and vegetarians who does not eat eggs.

5. Occupation:- The Special adjustment in the nutritional requirement of the older adult according to the degree of their activities. So the meals should be plan according to the occupation of the individuals.

6. Level of knowledge:- According to the level of knowledge of the family, the meal should be planned. So that all the family members can be accepted to take the food.

Ignorance and poverty are the main problems at the root of malnutrition and under nutrition and adequate nutrition is linked with education, social and economic status of a nation.

Selection of Foods:- When selecting foods to give a balanced diet it is essential that the body's need for growth and repair and for regulation and protection should be satisfied first. The total calories may be made up from other foods. McCollum has said "Eat what you want after you have eaten what you should".

Some foods help to satisfy the body's needs for more than one nutrient. Foods can therefore be divided into groups so that selection of one or more foods from each group will result in a balanced diet. These food groups are:-

1. Protein Foods:-

Milk and milk products (i.e., curds, butter milk)
Pulses- Dhal, gram, lentils, dried beans and peas.
Nuts and oil seeds.
Eggs.
Fish.
Meat:- Mutton, poultry, pork, beef.

2 Protective vegetables and fruits:-

(One or more from each of the following three groups)
Green leafy vegetables, amaranth, radish tops, spinach, fenugreek, drum stick leaves etc.,
Yellow or orange fruits and vegetables :- Carrot, pumpkin, papaya, mango.
Vitamin C rich fruits and vegetables are amla, Guava, orange, grape fruit, sweet lime, pineapple and tomato.

3 Other Vegetables:-

Flowers, fruit and stems of plants.
i.e, brinjal, ladies finger, beans and peas, cucumber, gourds and onions.

4 Cereals, Roots and Tubers:-

Rice, wheat, Maize, jowar, Bajra, Ragi and others.
tapioca, potato, yam, sweet potato, colocasia (cereals are more nutritious if at least two different kinds are eaten at the same time)

5 Fats, oils, sugars and jaggery vegetable oils, vanaspathy, ghee, butter, sugar, jaggery, honey, fats and sugars are good sources of calories.

Condiments and spices contain same nutrients but are used mostly to give flavour.

It should be remembered that one cereals particularly rice, should not used alone by omitting other cereals. This is of particular importance in south India.

For vegetarians who do not take flesh foods, more pulses and dhal should be taken and an increased amount of milk must be used to make total protein which is obtained by the animal sources. The dietary value of butter milk which is often very dilute, depends upon the quality of milk or curds from which it is prepared.

Nutritional Requirements for vulnerable groups:-

Some groups in our communities are more likely to lack a balance diet and to suffer from malnutrition. These are called the vulnerable groups. Vulnerable groups who need special attention with regard to nutrition are as follows:-

1. Infants : Birth to one Year.
2. Children : 1-3 yrs.
3. Children : 4-6 yrs.
4. School children and adolescents.
5. Pregnant and lactating mothers.
6. Old people.
7. The sick, who need a modified diet.

1. Infants:- Breast milk is the best food for infants - but is not enough after six months. From 4 months onwards child can start having porridge (Conjee) made with milk. When he is taking this well, from about 6 months he can be given porridge with extra proteins.

Daily 600 ml. of breast milk secreted by the mother. This milk contains 65 calories per 100 gms of milk.

After 6 months output of breast milk decreases while the nutritional requirements increase to the child.

The best indicator of infant nutrition is its body weight. Weaning means not sudden withdrawal of child from the breast. It is a gradual process starting around the age of 4 months.

"These weaning foods can be made from the flour of a good staple food, i.e, rice, wheat, maize, ragi, bajra, add some milk and sugar for taste. At 4th month give 1 or 2 spoonfuls of porridge once in a day when he is hungry before going to breast milk. Later gradually increase the amount of food. This may be boiled egg, mashed and mixed in, ground nut, gram or dhal ground to a

powder, sieved and added to cereal flour before cooked. Dark green leafy vegetables to the porridge also added.

Vegetables:- Such as carrots, pumpkin, green leaves, cooked and mashed. Fruits like ripe tomatoes, papaya, mangoes, juices with sugar and jaggery cane give.

At the age of 1 year the child should eat all the foods the family eat but the food must be soft with out spices i.e., cereals, pulses, vegetables, and fruits. The child needs 3 good meals a day. His weight curve will show if he is getting enough food for him to grow.

Children 1-3 years :- (Toddlers) need about 120 calories per day.

A Day requirement	Remarks
150 gm staple foods (at last two kinds including ragi or Bajra)	Serve 3 times a day.
200 ml. milk	Instead of this vegetarians need extra 100 ml. milk and
30 gm. egg, fish or meat	10 gm pulses.
40 gm Dark Green leafy vegetable..	preferably carrot, pumpkin, or
30 gm sugar of jaggery	other supplying carotene,
20 gm oil	jaggery provides extra iron
30 gm of other vegetables	and Costs loss.
50 gm of Fruits.	

A day menu :-

6 AM : Fresh fruit such as banana, guava, tomato, papaya or mango.

12 noon: 75 100 gm well cooked rice or other staple.
1 Boiled and mashed egg or fish or meat or
2 spoons well cooked or mashed dhal.
3-4 spoons boiled dark green leafy vegetables.
1 spoon ghee or oil, added and well mixed in the food while hot.

3 PM : Pulses such as Bengal gram 1 handful, milk with sugar or jaggery.

7-30 PM Meals similar to 12 noon meal.

Children 4-6 years or Pre School child)

Children in this age group need special attention they show a good deal of physical activity and growth. So they need extra protein vitamins and minerals. They need about 1500 calories per day, with requirements of following.

- 200 gm staple foods (two)
 - 200 ml. milk
 - 30 gm egg, fish or meat
 - 50 gm pulses.
- For vegetarians give extra milk and pusles.

- 75 gm Dark Green leafy vegetables. Give same waw vegetables salad
- 50 gm fruit. about 3 times per week.
- 40 gm sugar and jaggery. - 25 gm oil.

A Day menu

- 6 AM : Milk with sugar and jaggery.
- 8 AM : Ragi porridge or other staple, with milk and jaggery or pulses
- 10 Am Banana or other fruit.
- 12 noon Staple food (Two mixed), dark green leafy vegetables and other vegetables, one egg, dhal and curds, oi.
- 3 PM Pulse or nuts and milk.
- 7-30 PM Staple food (with family) and vegetable, fish or beans.

In many poor families, young children are breast-fed not given other foods to eat which result in high incidence of kwashiorkor and marasmus. The best guide to assess child's growth is his body weight.

Adolcents: - (6-15 years)

In this age protein caloric deficiency and vitamins are frequent. They need to have a good breakfast and to have a balanced midday meal at school. In the evening they again need to have a well balanced meal with the family. They need one or two snacks during the day. If a mid day meal is not provided at school, the child should be given packed meal to take to school.

Principles involved in organizing a school meal programme: -

1. The meal should be supplement and not a substitute to the home diet .
2. The meal should supply at least 1/3 of total daily calorie and 1/2 of the protein requirement.
3. Cost of meal should be reasonably low.
4. The meal should be prepared easily in school.
5. Locally available foods should be used.
6. The menu should be frequently changed to avoid monotony.

A child who is hungry will not be able to learn.

A Balanced midday meal: -

- Cereals such as rice or wheat - 75 gm per day per child.
- Pulses such as dhal or beans - 30 gm per day per child.
- Dark Green leafy vegetables -30 gm per day per child.
- Other vegetables -30 gm per day per child.
- Oil -8 gm per day per child.

A packed meal from home could include chappaties with thick dhal, boiled beans or ground nut, butter, and one fresh fruit.

5. Selection of foods during pregnancy :-

During first 3 months of normal pregnancy the diet need not be different from the average normal diet for women. After the 3 months the foods should be selected in such a way that all essential nutrients are supplied in proper amounts.

The following foods are include daily in the meal plan:-

- 30 gm - sugar or jaggery.
- 600 gm milk
- 120 gm meat, fish or 2 serving dhal.
- 4 serving vegetables and ghees
- 3 serving whole grain cereals. 2 fruits, nuts.

Meal Plan

Break fast	:	Coffee (or tea) with 100 ml of milk. egg. - 1. Cereals preparation, eg.: 2 idlies. Fruit - 1.
10 AM	:	Milk 100 ml. Nuts 25 gm.
Lunch	:	Rice 120 gm. Mutton 60 gm (or alternative). Vegetables and greens. Curds 100 ml. Dhal sambar.
3 PM	:	Milk 100 ml (in coffee or tea). Fruit 1. nuts 25 gm.
7 PM (Supper)	:	Chappathies 4. vegetables and greens.
9 PM	:	Milk 200 gm.

A minimum of 25 gms of oil should be used in cooking per day. Liver should be taken once or twice a week. For vegetarian dhal and grains can be used in place of meat and an increased amount of milk should be used. If the family can't effort large amount of milk, ground can be recommended. These can be used as chutny. Green leafy vegetables, Yellow vegetables, raw tomatoes, citrus fruits like lemon, oranges and gooseberry can be used papaya, guava also used.

Selection of food during Lactation:-

Immediately after delivery mother requires adequate rest. She can develop a good appetite during this period. She can give normal regular meal or light meal.

Later the selection of foods during the lactation is basically same as that during pregnancy except for the daily addition of : 500 ml. of milk.

30 gm mutton or 15 gm dhal.

- fruit (citrus one).

Pregnant and Lactating Women need a diet as follows:

Staple Food:-

Lactating Veg. Gm/day.

Woman Non-veg. gm/day. Cereals-in 3 meals

(include ragi or bajra).	500	75
Extra Proteins		
Pulses - 2 servings	100	50
Nuts or sesame seeds	100	80
Meat, fish or egg	—	100
Milk or curds	800	650
Protective foods		
Dark Green leafy Vegetables	100	100
Other vegetables	75	75
Fruits	60	60
Extra Energy Foods	75	45
Fats and oils	30	30
Sugar and jaggery		

If a pregnant or lactating woman is pure vegetarian or cannot afford to have milk, she should be encouraged to:

1. Increase the pulses in her diet.
2. Eat a handful of groundnuts daily.
3. Drink milk made from ragi malt, groundnuts or soyabeans.

6. Old People:- Old people need less calories than, and can eat only a small amount at a time, the diet should include some protein and protective foods every day.

	Vegetarian gm/ day	non - veg. gm. day
Cereals in meals (Including ragi or bajra)	300	300
Pulses	70	70
Ground nuts and sesame seeds	50	30

Milk	500	200
Meat, fish and eggs	-	30
Dark green leafy vegetables	100	100
Other vegetables	30	30
Fats and oils	20	20
Sugar and jagger.	20	20

Points for education of the community about good nutrition for vulnerable group (mothers and children) are as follows:

- 1 If children under 5 year do not have a balanced diet they easily get sick and may die or grow up weak in body and mind.
- 2 If a pregnant woman does not have a balanced diet (enough of the right kinds of foods every day) her baby when born is likely to be small and weak. Also she will not have sufficient breast milk.
- 3 Pregnant and nursing women need to eat more than they eat normally, with extra protein and protective foods for health of themselves and the babies they are nourishing.
- 4 The nursing mother should continue to have extra nutritious food, and include green and yellow vegetables daily. She also needs to drink more including milk substitutes.
- 5 Breast milk is the ideal food for babies, and should be continued as long as possible. Other foods need to be given in addition from the 4th month.
- 6 Make sure that all infants receive a balanced diet with something from each of the food group. At one year a child should be having all kinds of solid food plus breast feeding or about 4 cups of milk.
- 7 Children need to have regular balanced meals, and should not be made to wait long or to miss meals. They need 3 good meals a day and extra snacks. For snacks, give fruits, pulses and nuts.
- 8 Foods given to children should be:-
 - a) Well prepared in clean conditions.
 - b) Not highly spiced, nor with a lot of sugar.
 - c) well - cooked and served fresh.
- 9 Rapidly growing school children need a good balance diet with extra body building and protective foods.
10. Adolescents need plenty of energy foods in addition to

foods containing other nutrients. Mature girls need extra dark green leafy vegetables for iron to make hemoglobin, because they lose blood when menstruating.

7. Modified diets:-

There are 4 types of diets.

1. Full or regular diet.
2. Liquid diet or fluid diet.
3. Soft diet.
4. Bland diet.

1. Regular or Full diet:-

For patients who are allowed it, a well balanced full diet should be served, either vegetarian or non vegetarian as desired. Patients with tuberculosis should be encouraged to take a full diet to put on weight.

2. Liquid Diet:-

Liquid diets are used for patients who are unable to tolerate solid food and patients with high fever. This is modification of the consistency of a regular diet. If the patient receives liquid diet for along time, it is important to see that the diet should be adequate in all respects.

A liquid diet may be either a clear liquid or a full liquid diet.

1. Clear Liquid diet:-

It is used when an acute illness or surgical patient who are intolerated to food and other nutrients. The only foods permitted on this diet are clear tea, weak black coffee, fat free broth, clear soup, meat and yeast extracts, . soda water and other aerated beverages, clear fruit juice, barley water, gelatine, sugar and glucose. Such fluids are practically no food value other than calories. Calories may increased due to the use of glucose. This diet is continued for only one or two days.

2. The full liquid diet:-

It is given for the patients must be maintained by fluids for a long period of time. This is necessary for the patient who is unable to swallow solid food or gastrostomy tubes This diet includes all foods at room or body temperature.

Milk to the basis of good liquid diet and it can be enriched by adding egg, raji, skimmed milk powder or cream. Different flavors may be added to milk such as cocoa, coffee or fruits etc., strained dhal water, or soups made with meat or vegetables may be given, starches such as arrowroot, sago and cornflower can be

used to increase the calories.

3. Soft, semi Solid and Light diets: -

These are between liquid and full diets. The patient is unable to masticate. So the chief difference between this diet and the regular diet is the method of preparation.

The foods are cooked more simply with less spices and are more easily digestible and lower in roughage. A patient with moderate fever and one who is recovering from an illness or surgery, should be given light diet. When planned on the basis of the regular diet this diet should be equally nutritious and balanced. Avoid oily, fried foods, and greasy sweets. Foods may be minced or mashed to make them soft.

Make sure that highly nutritious foods are included such as green leafy vegetables, dhal, curds, also eggs, meat and fish for non vegetarian light diet.

4. Bland Diet: -

This is a soft and easily digestible diet with no spices or condiments and no strong coffee or other stimulants. It is often ordered in gastrointestinal conditions like ulcers.

Therapeutic Diet.

The diet may be planned according to the disease condition of the patient.

Anaemia: - It is a condition in which deficiency of hemoglobin or RBC content and which results in decrease of blood to carry O_2 to tissues.

Cause: -

- Loss of blood
- Malnutrition.

Treatment :-

- Remove the cause.
- Provide necessary nutrients.

The following plan will provide the essential nutrients for blood building.

1. 1 serving of dried fruit like raisins, dates.
2. Use whole grain cereals and not finely milled.
3. Weekly 1-2 servings liver, kidneys, Heart and 2 or more servings of pulses like dhal.
4. Use plenty of jaggery and green leafy vegetable daily.
5. Provide high protein diet, i.e, milk, egg, meat, fish.

Hypertension (or) High Blood Pressure: -

This is a common condition in middle age, especially in fat people. This may be temporary as a result of exercise, emotion, pregnancy, or menopause. It may be permanent, associated with atherosclerosis, cardiac failure or chronic kidney disease and stroke.

To prevent and treatment of Hypertension:-

1. Over weight people should loose weight. (low calorie diet).
2. Low fat, salt-free diet is needed.
3. Strong coffee other stimulants should be avoided.
4. Get the person to relax and not to worry.

A sample day man for Hypertension is as follows:-

Morning:-

Break fast ÷ Weak tea 1 cup.
Bread or idli with sugar or jam and butter,
serving.

Fruits 1 serving, and weak tea 1 cup.
Roasted nuts 1 table spoon.

Midmorning Fruit juice 1 glass.

Lunch Rice or chappati 1 serving.
Dhal or meat or fish curry 1/2 cup.
Vegetables and potato 1 serving.
Curds 1 cup.
Fruits 1 serving.
Skim milk pudding 1 cup.

Evening : Biscuits 2 and fruit juice 1 glass, and roasted
nuts 2 table spoons.

Dinner : Similar to lunch.

In this diet the food value should be :-

Calories not less than 2,000.

Protein - 20 gm / day.

Fat - not more than 5 gm.

Carbohydrates 470 gm or more.

Sodium - not more than 200 gms.

chlorin - not more than 200 mg.

Fruit juice - 700 - 1,000 ml / day.

Diabetes:-

In this disease. There is too much sugar in the blood, and some sugar is passed in the urine. It is due to difeciency of insulin production, a harmone released from the pancrease. It is common among rice - eaters and usually starts at about 40 years of age.

Diet should be strictly regulated according to the amount of sugar found in specimens urine and the amount of insulin ordered

by the doctor. When the injection of insulin has been given, food also has to be given and the doctor's instructions must be strictly followed.

The patient must be helped to understand the importance of diet in his disease and about the danger of coma.

The health worker must be observant and prevent the patient from taking forbidden food such as seeds and sweetend coffee.

Low calorie diet should be recommended. The diet should be according to the need of the individual patient. Total calories are divided into equally into 3 or 4 meals. In many patients sugar is higher during morning time, so smaller breakfast is given. Depend upon the type of insulin meals is taken.

4. Peptic ulcer:-

Discontinue in the lining of stomach and duodenum which is a chronic is called as peptic or gastric ulcer.

The Gastric juice contains acid and this prevents healing of the ulcer. A person who has a peptic ulcer will complain of pain in the upper abdomen which gets worse two or three hours after meals. The pain is increased at night when meals is missed.

At first there may be only indigestion and heart burn. Later, besides pain, there may be vomiting with blood, motion is black in colour called melena due to internal bleeding. The ulcer get deeper and cause a hole in the wall of the stomach or duodenum leading to peritonitis.

- Bleeding and peritonitis cause death if the condition is not treated urgency.
- Peptic ulcer can be prevented by taking regular diet and eating habits.
- For those with ulcer, health education is as follows;
 - The patient should take meals regular times.
 - A bland diet is needed.,
 - Avoid too much greasy spicy and heavy meals..
 - Avoid smoking and alcoholic drinks.
 - Relax, keep calm, and avoid tension, nervousness and anger.

Menu for Peptic Ulcer:-

- | | | |
|------|---|---|
| 6 AM | - | Milk 2 cups or 150 ml. |
| 8 AM | - | Bread 2 slices, and butter 2 tea spoon, |
| | | boiled egg, or cheese 2 slices, or |

ground nuts 2 table spoons and milk 2 cups.

10 AM - Milk 2 cups or 150ml.

12 Noon - Rice or bread, mashed dhal 1 cup.
- minced meat or fish, or cheese or ground

nut as above. Boiled

potato, and mashed leafy vegetables 1 cup.

- Curds 1 cup.

2 PM - Milk 1 cup.

4 PM - Milk with sugar 1 cup, and biscuits 2 .

6 PM - Milk with sugar 2 cups.

8 PM - Similar to 12 noon meal

- or soft cooled egg.

10 PM - Milk 1 cup.

Tuberculosis:-

In this the fever is prolonged unless the food intake decreases, the patient will lose weight.

Food should be bland, easily digested, varies and served attractively.

High Caloric : High Carbohydrate , High protein diet.

Break fast : - Coffee with milk 200ml.

- Cereals - 3 serving (eg. idlis).

- Egg - 1.

- Plantain - 1.

10 AM : Juice of 2 fruits.

Lunch : - Cooked rice - 2 cups.

- meat 50 g - one serving.

- Dhal 25 gm - one serving.

- Vegetables - One serving.

- Curds - 200 ml one serving.

- Sambar or dhal curry.

4 PM : - Milk 200 ml with tea.

- Snack

- Fruit - 1.

Dinner : - Cooked rice - 2 cups or chappathies - 4.

- Meat 50 gm (one serving)

- Dhal 25 gm (one serving)

- Curds 200 gm (one serving)

- Vegetables (one serving)

- Rasam .

Latenight milk 200 ml.

Sugar oil, and butter can be taken as desired. For vegetarians

flesh foods must be omitted and add more milk, curds and skimmed milk powder and more butter and ghee.

Dietary therapy:-

Adequate nutrition plays an important part along with fresh air, rest, change of environment and various drugs in the treatment of Tuberculosis.

One of the aim is prevent emaciation and promote weight gain. The weight gain is occur due to intake of adequate diet.

Principles of Diet therapy :-

1. Diet should be high in protein to promote healing and high caloric to regain weight lost.

Proteins - 75 - 100 gm / day.

Calories 2500 - 3000 cal / day.

2. The diet should be rich in minerals and vitamins .

Calories:-Calories is important for clasification of Tuberculosis nodes.

Iron is necessary for hemoptysis. Vitamin C is need for early healing.

3. **fluids** :- Up to 3000 ml / day is needed.

6. Renal diseases

Renal refers to the kidneys and urinary tract. The special diet in kidney disease has already been mentioned. For infections of the urinary tract and renal stones , give plenty of fluids. If there is no fever, a bland, well balanced diet may be given.

7.Heart Disease:

Heart troubles are more common in older people, especially those who are fat , those who smoke, and those with hyper tension. The trouble is most often Coronary heart disease.

Diet is important in the treatment and care of those with heart problems. The diet should be low in cholestrol and rich in essential fatty acids. Those who are overweight should have less calories. They should have little or no salt.

A sample day's menu for Coronary Heart disease is as follows:

Morning	Weak tea or milk.
Breakfast	Bread or idli 1 serving, cheese 2 slices, or ground-nut 2 teaspoons.
	Fruits 1 serving, weak tea or milk 1 cup.
Lunch	Rice or chappati 1 serving, Dhal or meat or fish curry 1 serving, Vegetables 1 serving, curds 1 or 2 cups,

Tea Fruits 1 serving,
 Skim milk pudding 1/2 cup.
 Biscuits 2 , nuts 2 table spoons,
 Fruit 1 serving and Weak tea 1 cup.

Dinner Similar to Lunch.

Summary

- There are various factors influence the planning of meals. They are income, family size, religion, culture and occupation.
- Food should be selected according to the nutritive value i.e, protein foods, protective vegetables and fruits, cereals and fats and oils etc.
- Nutritional requirement for special groups are infants, toddler, pre-school, school age or adolescents, pregnant and lactating mother and oldage people.. These are vulnerable groups need special diet.
- These other types of diets i.e., liquid diet, full diet, bland diet and soft or semi solid diet.
- Other diseased persons need therapeutic diet those are anemia, hypertension, diabetes, peptic ulcer and tuberculosis.
- Health worker know the preparation of special diets to the patients.

Questions

1. Explain the factors considering in planning meals.?
2. List out various food groups in selection of food?
3. Who are considered in special or vulnerable groups?
4. Write the therapeutic diet for Tuberculosis patient?
5. Write the nutritional requirements and meal plan to the pregnant mother?
6. Write the therapeutic diet for Hypertension case?

UNIT IV

PREPERATION OF FOODS

Fruit juice, barley water, tea, egg flip, boiled egg, pouched egg, albumin water, whey.

1. Fruit juice:-

It is prepared from fresh fruit. Remove the juice from citrus fruit by means of squeezeer, strain, dilute, with water and add sugar or glucose to taste.

Fruits which stew well, eg: apples and tomatoes may be stewed with a little water until pulpy, then strained through muslin. Add water and sugar or glucose to taste.

2. Barley Water:-

1 table spoon of barley flour.

2 table spoon of cold water.

500 ml of boiling water - salt.

Mix the flour to a smooth paste with cold water and gradually add the boiling water, stirring all the time, boil about 30 mts add salt and 1 table spoon of lime juice, and strain before use.

3. Tea :-

Boil clean water, pour a little amount of water into the tea pot to warm it, and pour this way. Put some tea leaves into tea pot (about 1 tea spoon) full and pour on boiling water. Cover the teapot and leave it to stand for about 2 mts before serving. Add a little milk and sugar or lime juice.

4. Egg flip :-

Break an egg thoroughly (yolks not used, in albumin water may be used) and add 250 ml of milk. Stir well and strain before serving. This may be flavoured with sugar, cinnamon or lemon juice. If desired, it may be added to coffee, tea or cocoa.

5. Boiled Egg:-

A lightly boiled egg, cooked but still soft, is easily digested and suitable for the sick and for infants. The egg in its shell is placed into a pan of boiling water and kept boiling for 3 to 4 mts.

6. Pouched Egg:-

This is suitable for those who are on light diet. Break the shell, taking care not to break the egg yolk and pour the egg into a shallow pan of boiling water. Cook gently until the white part is opaque. Take it out with a fish slice or flat spoon. It is usually

served on a slice of toast with or without butter, and a little salt.

7. Albumin water:- 1. Press the whites of two eggs through gauze into a glass, and without beating add lime juice, water and sugar, .

For some persons without sugar added beef juice or to any beverage to the albumin water.

Albumin water:- 2. Take the whites of two fresh egg. Add one cup of water put into a wide neck bottle. Cork it and shake thoroughly. Add a little lime juice and sugar. If preferred orange juice may be substituted for the lime juice.

8. Whey:-

To 500 mL. of fresh milk warmed to blood heat (37° C) add 1-2 teaspoons of rennet. Set it aside in a warm place for a water of an hour. Then break up the curd thoroughly by stirring with a fork. Let it stand for 15 mts, then strain the whey through muslin and bring it to the boiling point. Curds may be used in place of rennet.

SELECTION AND STORAGE AND PREPARATION OF FOODS

1. SELECTION:-

The health worker should help family to plan the diet selecting foods for a mixed, well balanced diet:

- 1 Select more than one kind of cereal grain. Raw milled rice and white flour should be avoided. Select paraboiled milled rice and whole wheat flour which are much more nutritious.
- 2 Select different kinds of pulses and nuts.
- 3 Buy grains and pulses in fairly large quantities if possible, if necessary going to some place where they are cheaper.
- 4 Select foods that are in season, plentiful and cheap.
- 5 Select a different kind of vegetables for each day as far as possible.

Buy fresh and make sure they are of good quality. Include some vegetables or fruit that can be eaten raw.

- 6 Try to produce foods at home: Vegetables, fruits, milk, eggs etc.

STORAGE:-

Teaching points are :

- 1 All foods should be kept in clean conditions safe from rats

and other pests.

2 Vegetables and fruits lose their nutrient value if kept too long. Try to buy frequently. Keep them cool, away from sunlight and where there is plenty of fresh air. Use while fresh.

THE PURPOSE OF COOKING

Cooking is an art. It is linked with dietary habits and cultural pattern of people.

Different methods are used in different types of diets.

- 1 To soften and break down the cellulose of plant foods and the connective tissue and fibres of animal foods, to make them more digestible.
- 2 To develop new flavours in food, either by the method of cooking or by adding spices other flavouring substances.
- 3 To destroy the harmful bacteria, worm eggs and parasites. So that the food is safe for human use.
- 4 It stimulates the digestive juices.
- 5 It introduces variety, i.e, many different types of dishes can be prepared with the same ingredients.
- 6 Good cooking increases the acceptability of food, where as bad cooking may lead to rejection of foods.

METHODS OF COOKING: -

During the process of cooking, heat is applied to food in some way or other. The amount of heat and the form of heat depends upon the food to be cooked.

Methods which may be used are boiling, simmering, stewing, steaming, frying, grilling, baking and roasting.

1. Boiling:-

Cooking in water at 100°C (212°F) is called boiling. For this the water must be bubbling freely, but steadily, all over the surface. Rice, dhal, pulses, roots, tubers and other vegetables are cooked in this way. Boiling in excess of water may result in loss of Vitamins and minerals. So minimum water should be used.

2. Simmering:-

It is a modification of boiling. Being to cook food in water just under boiling point. The temperature should be about 84°C. Meat and fish are best cooked by simmering because at high temperature, the fibres of meat are hardened.

3. Steaming :-

It is cooking food in the vapour which rises from boiling water. This may be done by placing the food container in a steamer above a pan of boiling water or pressure cookers. Because of increased pressure of steam, the temperature attained is higher than 100°C. This process is best to save nutrients, food and time.

4. Stewing :

This method differs from boiling, in that

(a) comparatively smaller amounts of liquid is used.

(b) prolonged low degrees of heat is applied, usually about 200°F

i.e., simmer food slowly with only a little liquid in a covered pan on top of the stove. The addition of onions, tomatoes or small cut vegetables and some condiments and herbs can make a meat stew appetising. In this method the nutrients are not lost. Stewing is used for cooking meat.

5. Frying :

It is cooking food in very hot fat or oil. This is one of the quickest methods of cooking and should be done in an open pan.

These are 2 types (1) Shallow frying (2) Deep frying

(1) Shallow Frying: Shallow frying is suitable for cooking foods like eggs, sausages, dosai and pre-cooked foods.

(2) Deep frying ; Food is completely immersed in large quantity of hot oil.

Eg.: Puri, pakoda, Vadai, cutlets etc. In deep frying oil should be sufficiently hot, otherwise food will absorb lot of oil and oil is free from moisture.

6. Roasting:

Food is smeared with a little fat and exposed directly to heat or flame.

Chicken or tender mutton may be cooked by this method and also large joints of meat and for root vegetables dry roasting. Eg. Ground nuts.

This causes only slight loss of nutrients.

7. Baking:

It is cooking food by dry heat. It is done in a hot air oven. Food is enclosed by hot air, so that it gets heat from all sides. The

cooking temperature may vary from 250°F to 500°F.

Baking is an expensive and slow method of cooking. In this Biscuits, Cakes, Bread are usually cooked.

8. Puffing:

This is applying heat for a few seconds. It causes slight loss of thiamine only. Puffed rice, . Bengal gram and peas are commonly used for snacks.

9. Grilling:

It is cooking food by exposing it directly to very great heat either in front of a bright, hot fire or a special grilling plate.

It is very quick method of cooking. Only tender foods can be cooked eg: Meat and fish, kabab, cheese, tomatoes, , brinjal etc. Stoves heated by gas and electricity are usually fitted with plates which can be heated for grilling.

General Principles of cooking: -

1. Vitamin C is mostly lost in any kind of cooking especially by cooking for a long time. So you should not cook for a long time.
2. Adding cooking soda to dhal to hasten or to greens cause heavy loss of vitamin C. Therefore soda should not be used.
3. Green leafy vegetables should be cooked in covered, quickly in a little boiled and salted water.

Other vegetables should be covered.

4. Vegetables should be eaten after thorough wash with salt water and clean water. Cut in to large pieces to prevent loss of vitamins.
5. Add tamarind or other acids only at the end of cooking or vegetables become hard.
6. Should not open the coverings while cooking food. Too much of opening may cause loss of vitamins.
7. Should not wash the rice so many times before cooking, this may cause loss of vitamin B which is the outer layer of rice.
8. Should not pour too much water and remove congee, it may cause loss of nutrients.
9. Use fresh vegetables for cooking to save nutrients.
10. Using too much of oil also dangerous to health. Oil should be heated well before using.

Preservation of foods:

While fresh foods usually have a better taste, appearance and colour, it is useful to be able to preserve foods and keep them longer. By preservation methods, growth of bacteria is slowed down.

(-Freezing is the best way to preserve foods at home but a refrigerator is costly)

House hold methods:- It is the best way but it is costly to preserve foods at a low temperature if possible.

1. Cold storage:- The home refrigerator has now made to store and preserve a variety of foods. Fruits and vegetables should be kept just above the freezing point i.e., 0°C or 31 - 33°F, meat and butter are kept at much lower temperature. There is no growth of food poisoning organisms at this low temperature.

2. Drying or Dehydration:-

Drying removes water and without moisture micro-organisms can not grow. Vitamin C is destroyed but other nutrients are preserved. Milk, fruits, vegetables, fish and meat may be preserved by drying. Preserved fruits and vegetables can be used when out of season to supply nutrients such as iron and carotene.

A simple dryer has been invented which could provide the basis for a cottage industry for preserved food.

3. Smoking:-

Meat may be preserved with smoke. Smoke contains phenols which help in preservation.

4. Salting and pickling :-

Salt is a preservative. By adding certain condiments mangoes, vegetables, meat and fish may be preserved.

5. Making Jam:-

By boiling fruits and adding equal amount of sugar, jam is made which the housewife can keep for some time.

Commercial Methods:**1. Canning:-**

Various foods (Eg. fruit juices, milk, baby foods, soups, fish) are preserved by canning. The food is first sterilized at high temperature i.e., 275 - 350°F for a short time i.e., a matter of a few seconds, then cooled and filled in presterilized containers in a

sterile atmosphere. There is some loss of meat labile vitamins during the process of canning.

2. Freezing :-

A number of foods (fruits, vegetables, meat, fish) are preserved by the freezing techniques. At 0°F vegetables can be preserved for 8-10 months and meat for about 3 months.

3. Chemicals:-

Certain chemicals (eg: benzoic acid, sodium benzoate) may be used for preservation but their use is strictly limited by government regulations and prohibit the use of chemicals for preserving food.

4. Irradiation :- Micro Organisms. are destroyed by gamma rays.

Wheat, potatoes and onions may be preserved by irradiation.

Milk preparations:-

Milk is high in nutrients, but quickly spoils. It keeps longer in the following preparations which can be made at home:

Curds : Add about 1/4 teaspoonful of 'starter' for each cup of barely warm milk, and let it stand at room temperature for twelve hours or more undisturbed. Lime juice can be used for starter if old curds from the day before is not available.

Cottage cheese: Set the curds. After it has well set, drain off the whey by straining through a clean cotton cloth. When dry, remove the cheese from the cloth, add salt, and cream also if possible.

Ghee : Set of curds. After it has set, beat it up until butter forms. Then mix in cold drinking water and separate off the butter. Drop the ball of butter into a pan, and boil gently till all the white disappears and a good smell comes from the boiling butter. Then store in a covered pot.

Khoya which can be used to make milk-sweets, is made by boiling milk on a slow fire for some hours.

OTHER METHODS OF ENRICHING THE FAMILY DIET:

Sprouting gram, increases the vitamin B and C content of the gram. Green gram is best. Soak it in water for 24 hours, then spread it out on a damp cloth and keep the cloth damp for one or two days, until there is a half inch sprout. It may be eaten raw or

after cooking for a shorter.

Fermenting Cereals and dhals increases the Vitamin B content. This is done in making the popular S. Indian idli and dosa.

Cereal-millet mixture : Using a millet such as ragi or bajra or jowar together with the staple cereal, adds extra nutrients to the dosa.

Cereal-Pulse mixture: The protein value of a meal is increased by adding dhal or groundnuts to rice, roti, or chappati.

Milk Porridge : If instead of using water, milk is used to make the porridge out of any cereal flour, an infant gets more protein and calories in his diet.

Powdered protein foods can be prepared at home or in a mill. Foods rich in plant proteins such as groundnuts, grams and dhals, beans, are pounded or ground into powder. Dried fish can also be powdered. The protein rich powders can be kept in tins. They need to be cooked and should therefore be added to the cereal flour before cooking. This makes a very nutritious meal for a child.

Pounded Dark Green Leaves : The leaves may be pounded either fresh or dried. Dried leaves make a green powder which can also be used to enrich a child's porridge. It can also be added to the dough for making roti or chappati, to enrich the family diet. It is rich in protein and iron.

EFFECTS OF COOKING

(1) Digestibility :

The first and most important purposes of cooking food is to increase digestibility. The starch granules absorb water, swell up and burst; the connective tissue of meat and fish is softened which helps in digestion.

(2) Destruction of microorganisms and parasites:

Cooking renders the food safe for human consumption by destroying microorganisms like the typhoid bacilli and also the eggs and ova of intestinal parasites. Special mention must be made of the cysticerci of tapeworms which are destroyed.

(3) Vitamins:

The vitamins that are effected by cooking are vitamin B and vitamin C. The other vitamins are not destroyed.

(4) Protiens:

Protiens are coagulated by heat. This helps in digestion.

(5) Colour and texture changes:

Foods undergo colour and texture changes during cooking. The palatability of food is increased.

Effects of cooking on food constituents:

(1)Carbohydrates:

As a result of heating in water, the starch granules absorb water, swell up and eventually burst. This is known as "gelatinization" of starch. Maximum gelatinization occurs at boiling point temperature. There is also a large increase in volume as for example, rice when it is cooked increases greatly in bulk.

(2) Protiens:

Protiens coagulate at 60°C, boiling hardens albumin and globulin. This can best seen in the case of egg, if the egg is boiled for a long time, the albumin becomes very tough.

(3) Fats: These are not effected much by heat.

(4) Vitamins;

There is some unavoidable loss of vitamins during cooking. The loss is considerable in respect of thiamine and vitamin C. The use of baking soda in cooking causes further distruction of vitamins.

(5) Minerals: These are not effected by cooking.

Effects ofcooking on different types of food:

(1) Cereals:

Rice is washed before cooking. Excessive washing removes the water soluble vitamins and minerals. The practice ofcooking rice in large quantities of water and draining away the excess of water at the end of cooking leads to further loss of B group vitamins and minerals.Rice, Therefore must be cooked with just enough water so that all the water is absorbed at the end of cooking.This is usually 2 or 2 1/2 times the volume of rice. All cereals (Eg. wheat flour) absorb water and during cooking starch granules swell up and burst. This renders the digestion of starch rapid and complete.

(2) Pulses:

Pulses are rich in proteins (20% to 25%) . They also contain small quantities of starch. It is very important to boil pulses very thoroughly, this destroys antitrypsin substance present in them.

(3) Greenleafy vegetables:

Greenleafy vegetables are prized for vitamins and minerals. The vitamin A which occurs in the form of carotene is not affected by cooking, but other vitamins thiamine and vitamin C are partially destroyed by cooking. If the cooking water is drained away, there will be loss of not only vitamins but also minerals. It is therefore recommended that greenleafy vegetables should be cooked in a small amount of water and for the proper length of time. Baking soda should not be used to hasten cooking.

(4) Other vegetables:

Other vegetables like potatoes should be cooked with their outer skin intact this retains all the vitamins and minerals contained in them. As a rule, vegetables should be cooked in a small amount of water to prevent loss of vitamins and minerals. They can also be cooked by steaming.

(5) Fruits:

Most fruits are eaten fresh and raw. This makes the vitamins present in the fruits easily available. Fruits can also be cooked by stewing, this will result in loss of some vitamins, particularly vitamin C.

(6) Meat:

Meat is cooked in a number of ways i.e., boiling, roasting, stewing, frying.

The following changes take place in meat during cooking:

- (a) Coagulation of protein at 60°C .
- (b) There is reduction in water content.
- (c) Collagen which is a protein of the connective tissue is changed into gelatin.
- (d) Elastin, which is also a component of connective tissue is not affected.
- (e) The fat of meat melts.
- (f) There is loss of mineral salts in cooking water but this water can be used as a soup or gravy.
- (g) The loss of B group vitamins especially thiamine.

(7) Fish:

Fish contains so little connective tissue, so the cooking time is very short. The proteins coagulate at 60°C in fish.

(8) Milk:

When the milk is heated, scum consisting of fat, forms on the surface. This makes it difficult for steam to escape, hence milk boils over easily. Some of the lactalbumin sticks to the sides and bottom. Prolonged boiling may alter the taste of milk. The cooked flavour is due to burning or caramelization of milk sugar. There is destruction of thiamine and vitamin C during boiling. Milk, which is already a poor source of vitamin C becomes poorest at the end of the boiling. Boiling destroys enzymes and the useful lactic acid bacteria present in milk.

(9) Egg:

The albumin of the egg begins to coagulate at 60°, and solidifies at 64° to 65°C. At boiling point i.e., 100°C the albumin becomes tough. However there is little change in the nutrients present in the egg.

FOOD HYGIENE

Food is a potential source of infection. It can be contaminated by bacteria and other microorganisms and parasites at any point during its journey from the producer to the consumer.

Food hygiene implies hygiene in the production, handling, distribution and serving of all types of food. Food hygiene is an important aspect of community health.

MILK HYGIENE

Source of infection:-

Milk is an important "vehicle" or medium for the transmission of disease agents eg: tuberculosis bacilli, typhoid bacilli. The contamination of milk may arise from 3 sources.

1. The dairy animal, eg: Tubercle bacilli.
2. The human handler: eg: Typhoid bacilli.
3. The environment; Eg: Through contaminated vessels, polluted water, dust and flies.

Milk Borne Disease:-

The important milk borne diseases are:-

1. Directly from the milk of animal.

- a. Bovine Tuberculosis.
- b. Brucellosis.
- c. Streptococci infections.
- d. Q. Fever.
- e. cow pox.
- f. Foot and mouth diseases.
- g. Anthrax
- h. Tick - born encephalitis.

Indirectly from the human handler or environment :

- a. Typhoid and paratyphoid fever.
- b. Dysentery.
- c. Cholera.
- d. Viral hepatitis.
- e. Diphtheria.

Boiling of Milk:

Boiling is an ancient method of rendering the milk safe for human consumption. In fact much of the milk produced in India is treated by boiling.

The Disadvantages of boiling the milk are:

- 1.. Boiling kills all organisms present in the milk, including the useful lactic acid bacteria.
2. It destroys vitamin C and B mostly.
3. Boiling gives a "cooked" taste to the milk, due to the burning of lactose during boiling.
4. Proteins in the milk are coagulated.
5. The enzymes are destroyed.

Pasteurization:-

Pasteurization has been defined by an expert committee of WHO (1970) as "The heating of milk to such temperatures and for such periods of time as are required to destroy any pathogens that may be present while causing minimal changes in the composition, flavour and nutritive value".

Pasteurization differs from boiling in the following respects:-

1. Pasteurization destroys only the harmful pathogenic bacteria, but not the useful lactic acid bacteria.
2. The vitamins are not destroyed by pasteurization.

3. Pasteurization causes only minimal changes in protein and sugar.
4. Pasteurization is the simplest, safest and the cheapest method of rendering milk safe.

Methods of pasteurization:-

Three methods of pasteurization are widely used:

1. Holder or vat method.
2. HTST or high temperature and short time method.
3. UHT or ultra high temperature method.

1. Holder (Vat) method:-

In this method milk is heated and kept at 63 - 66° C for 30 mts and the quickly cooled to below 5 degree Centigrade.

2. HTST method:-

Milk is heated rapidly to a temperature of 72°C and then quickly cooled to below 5°C.

3. UHT method:-

The temperature of milk is raised to 125 - 150°C for a few seconds only and then rapidly cooled.

Phosphatase Test:-

This test is employed to find out if the milk has been properly pasteurized or not. The test is based on the principle that the enzyme phosphatase which is present in raw milk is destroyed during pasteurization. If the phosphatase enzyme is present after pasteurization, it indicates that the milk has not been properly pasteurized.

Meat Hygiene.

The term "meat" includes various tissues of animal origin. Meat can be a source of infection if it is bad or unwholesome. The meat-borne diseases are :-

1.. Tape Worms :-

Tinea solium.
Tinea Saginata.
Trichinella spiralis.
Fasciola hepatica.

2. Bacterial - Anthrax.

- Actinomycosis.

- Tuberculosis.
- Food poisoning.
- Anthrax.

Meat inspection:-

Since meat is consumed by a large number of people, it is a responsibility of the community to ensure that the meat sold in the market is fit for human consumption. This responsibility rests on municipalities, corporations and other local bodies. The animals to be slaughtered are first examined by a qualified veterinary surgeon. This is called "antemortem examination". The diseased and sick animals are excluded, and only healthy animals are passed for slaughter. The main causes of antemortem rejection are emaciation, tuberculosis, pregnancy, diarrhoea, febrile conditions, sheep - pox, foot rot, bluetongue. A second examination is carried out soon after slaughter: This is called "Postmortem inspection". If any disease condition (Eg: cysticercus bovis, liver fluke, hydatidosis, tuberculosis, infections of liver and lungs) is found, the meat is rejected.

Signs of good meat:-

The characteristics of good meat are:-

1. Colour :- This should not be pale pink or deep purple.
2. Touch :- The meat should be firm and elastic to touch.
It should not be greasy or slimy.
3. Smell :- The odour should be agreeable.

Fish

Fish decomposes quickly after death. The signs of fresh fish are:-

1. It must be in a state of stiffness or rigor mortis.
2. The gills must be bright and
3. The eyes must be clear and prominent.

The following diseases are known to be transmitted by fish :

1. A tape worm known as D-latus and
2. Fish poisoning. Since fish is not eaten raw in this country. D-Latus infection is a rare disease.

Tinned fish :

More and more people are eating tinned fish and meat these days than over before. It is necessary to inspect the tin or can before consuming the contents. The following points should

be noted when examining tinned fish or meat or any other tinned food.

1. The tin must be from fresh stock i.e it must be new and clean.
2. There should be no evidence of having been tampered with, as for example, the presence of scaled openings. Such tins should be discarded.
3. On shaking the tin there should be no sound.
4. On opening the tin, the contents should not be blown out, on the other hand, there should be a hissing noise.

E G G S

Eggs become stale on prolonged storage, and storage under unsatisfactory conditions. The freshness of the eggs may be tested as follows:-

1. **Candling:-** When a strong light is projected, the egg must appear transparent. The eggs are rejected if there are any spots or internal blemishes.
2. **Floating in saline water:-** Fresh eggs sink in 10 % salt solution; stale eggs will float.

Fruits and vegetables

Fruits and vegetables, especially those which are eaten raw (i.e., tomatoes, radish, carrot) can be a source of infection. Those which are grown in sewage-irrigated land, are particularly dangerous, if eaten raw and unwashed. They can transmit pathogenic bacteria like the typhoid bacilli and worm infestations. Vegetables which are cooked and eaten are free from this danger. Vegetables which are to be eaten raw are best treated in a weak solution of potassium permanganate, and later washed in running water.

Sanitation of eating place:-

Sanitation of eating places (eg: hotels, restaurants) is a challenging problem in food sanitation. It is particularly low in India. The following minimum standards have been suggested for restaurants and eating houses in India under the model public health act (1955)

1. Location :

Shall not be near any accumulation of filth, open drains, stables, manure pits and other sources of nuisance.

2. Floor :

To be higher than the adjoining land, made with impervious material and easy to keep clean.

3. Rooms :

a. Rooms where meals are served shall not be less than 100 sq. feet and shall provide accommodation for a maximum of 10 persons.

b. Walls up to 3 feet should be smooth, corners to be rounded should be impervious and easily washable.

c. There should be ample lighting facilities aided by artificial lighting with good circulation of air.

4. Kitchen :

a. Floor space minimum 60 sq. ft.

b. Window opening to be 25% of floor area.

c. Floor to be impervious, smooth, easy to keep clean and non slippery.

d. Doors and windows should be 2% of floor area, in addition to smoke pipes.

5. Storage of cooked food:-

Separate room should be provided for long storage, control of temperature is needed.

6. Storage of uncooked food stuffs:-

Perishable and non perishable articles should be kept separately, in rat proof and vermin - proof space; for storage of perishable articles, temperature control should be adopted.

7. Furniture :

Should be reasonably strong and easy to keep clean and dry.

8. Disposal of Refuse:-

To be collected in covered impervious bins and disposed of twice a day.

9. Water supply :

To be an independent source, adequate, continuous and safe.

10. Washing facilities:-

To be provided cleaning of utensils and crockery, to be done in hot water and followed by disinfection.

Food handlers

Food handlers are those persons who are connected with cooking, serving or distribution of food. They can spread disease by their unhygiene habits. The diseases likely to be spread by food handlers are typhoid and paratyphoid fever, diarrhoea, and dysentery, viral hepatitis (Jaundice) and intestinal worms.

Persons with a previous history of typhoid fever, and chronic dysentery should not be employed in eating establishments. Persons suffering from skin diseases ear discharges or only infected wounds on the body should not be permitted to handle food or utensils.

Many of the food handlers have very little educational background. The following aspects of personal hygiene should be emphasized to all food handlers.

a. Hands :

The hands should be clean at all times. Hands should be scrubbed and washed with soap and water immediately after visiting a lavatory. Finger nails should be kept trimmed and free from dust.

b. Hair :

Head covering should be provided, particularly in the case of females to prevent loose hairs falling into food.

c. Overalls : Clean white overalls or aprons should be worn by all food handlers.

d. Habits :

Coughing and sneezing in the vicinity of food, licking the fingers before picking up an article of food, smoking on food premises are to be avoided.

Food Borne Disease

Food Borne infections and diseases may be classified as below:-

1. Bacterial :- Typhoid and paratyphoid.
Diarrhoea.
Dysentery.
2. Viral : Viral Hepatitis (jaundice)
Polio myelitis.

3. Protozoal : Amoebiasis.
4. Intestinal worms : Tape worm and round worm.
5. Others : Food poisoning.

Summary

- The health worker should help families to plan the diet selecting foods for a mixed, well balanced diet.
- Select different kinds of nutrients.
- Select foods that are in season, plentiful and cheap.
- Food materials should be stored in proper methods.
- The health worker should know the purposes of cooking.
- The types of cooking are boiling, steaming, pressure cooking, frying, dry roasting, baking, puffing.
- Preservation of food materials by household methods are drying, salting, pickling, making jam etc.
- The food hygiene should be maintained to prevent communicable diseases that are spread from one person to other persons.
- The food handlers should be little educable and they have maintain proper hygiene to prevent the spread of disease.

Questions

1. Write the general principles of cooking and how will you preserve some of the foods?
2. Write in detail about methods of cooking?
3. Write in detail about pasteurization of milk?
4. How can you maintain hygiene toward fruits and vegetables?
5. List the food borne diseases.
6. Write about food handlers?
7. Write about meat hygiene.
8. Write in detail effects of over cooking?

UNIT - V**BALANCED DIET :-**

A balanced diet is one which contains all the nutrients such as carbohydrates, fats, proteins, vitamins and minerals which meet the requirements of the body to maintain a balance state of health is known as balanced diet.

If any nutrient is deficit the individual suffers with malnutrition of that factor. Usually malnutrition in carbohydrates, proteins are seen in children due to lack of proper nourishment in India.

MAL NUTRITION :-

This condition is wide spread in India among children 6 months to 3 years. Malnutrition is a condition which occurs when the body does not get the proper kind of food in the amounts needed for maintaining health or child is getting too little of energy foods (calories) as well as the little of body building (proteins) foods. In fact there is starvation or under nutrition.

The main factors causing PEM are:-

1. Poverty and poor environmental sanitation.
2. Ignorance, illiteracy, food fads and habits.
3. Repeated infections such as diarrhoea and respiratory infections.
4. Large families with not enough foods.
5. Low birth weight and an anaemic mother.
6. Infections, worm infections.

Signs and symptoms:- The signs and symptoms of malnutrition in children are :

1. Growth failure or the child loses weight.
2. Skin changes - skin dry, scaly or rough, loss of sub cutaneous fat (elasticity)
3. Eye changes - dryness, night blindness.
4. Hair changes - light colour, brittle.
5. Oedema.
6. Anaemia .
7. Others : apathy, listlessness, soreness of mouth, bowing of legs, frequent episodes of illness etc.

Screening for malnutrition:-

There are several methods to identify malnutrition in children:

1. Height and weight :- The best way to identify children who are malnourished is to take their height and weight regularly. The

growth chart shows the child's health and nutritional status.

2. Mid arm circumference :- Another simple and useful method is to measure the mid arm circumference. Any child between 1-5 years considered to be malnourished, if the measurement is less than 12.8 cms.

3. Clinical and laboratory examination:-

The examination of child from head to foot for signs of malnutrition (i.e. protein, vitamin and mineral deficiencies) is another approach for detecting malnutrititions. Such examinations may be supplemented by laboratory tests such as estimation of hemoglobin.

Problems of mal nutrition:-

The important problems of malnutrititions in India are :

1. Kwashiorkor and marasmus:-

These are serious diseases of P.E.M. which develop in young children between 1-3 years of age. They are due to (a). An inadequate diet, that is a diet lacking in proteins and calories and

(b) Infections such as diarrhoea, measles, bronchitis which lead the child into malnutrition.



KWASHIORKAR



MARASMUS

The Signs and symptoms of kwashiorkor are:

- Oedema.
- Growth failure.
- Diarrhoea
- Hair and skin changes.

The signs of marasmus are :-

- Marked wasting of muscles and
- Loss of subcutaneous fat.
- The child is reduced to "skin and bones" kwashiorkor and marasmus affect not only the physical growth but also mental

development of the child. They can also cause death.

PEM need to be prevented by means of:

1. Proper antenatal care of mothers, because a healthy mother give birth to a healthy baby.
2. Promotion of breast feeding.
3. Proper weaning of the child.

The child should be given nutrition supplement starting around the age 4-6 months as breast milk alone is not sufficient to sustain the growth of the child. Nutritional supplements can be easily prepared at home using low cost locally available. Foods such as cereals, millets, pulses groundnuts, sugar and jaggery. Proper use of these supplements help in preventing malnutrition during the weaning period.

4. Nutrition education of the mother.
5. Immunization of the child against childhood diseases.
6. Food hygiene practices to prevent infections.
7. Economic development to decrease poverty.
8. Improved environmental sanitation.
9. Nutrition and health education.
10. Family planning.

2. Anaemia:-

If the conjunctiva is pale, the persons said to be anaemic.

- A better method will be to estimate the Haemoglobin level.
- If the Haemoglobin level is less than 12 gms. the person needs treatment of iron and folic acid tablets.

a. Vitamin A deficiency:-

This is a serious health problem especially among pre school children.

1. Stunted growth i.e., the growth may be decreased.
2. Un healthy eyes.
 - Night blindness or inability of see in dim light.
 - Bitot's spots : These are brownish, triangular, raised, foamy patches seen on the white portion (conjunctiva) of the eye.
 - Xerophthalmia : Means dryness of the eyes which leading to eye infections and later keratomalacia (dull, opaque, cornea) and to blindness.

The conjunctiva is pale.



3. Dry, scaly skin and epithelial tissues. Germs enter easily leading to infections of respiratory tract. Eye changes leading to blindness can occur rapidly. Screening of small children is needed to detect early signs of the deficiency.

- In the government programme started in 1976, children from 1-5 year are given an oral dose of Vitamin A solution once in 6 months. If too much vitamin A is given toxic symptoms occur such as head ache, loss of appetite and dry itching skin.

b. Vitamin D deficiency:-

Vitamin D deficiency leads to following conditions:-

1. Rickets:- Rickets in children who donot have enough sunliht or who are not eating animal food such as eggs. It is a common disease in children. Rickets causes a child to have poor teeth and a small chin, bulging of the head bones, beading of the ribs, and bow legs or knock knees. The child feels sore in various parts of the body.

2. Osteomalacia :- It means Softening of the bones which may be seen in adults.

In these two conditions the essential abnormality is that bones contain less calcium than normal. In this condition the softening of the bones occur. It is a disease of pregnant or lactating mothers and old people.

When signs of these disease are found, Multivitamin tablets and advice on diet should be given, and the person referred to a doctor.

c. Vitamin E deficiency:-

- It Causes habitual abortion, testicular and myocardial degeneration.

d. Vitamin K deficiency:-

It is rarely occur in adults who consume normal balanced diets. It causes decreased clotting mechanism.

e. Vitamin C deficiency :-

It is called scurvy disease i.e., bleeding disease. It is mostly seen in infants fed on in adequate artificial feeds. The persons who does not have enough fresh fruits and vegetables containing vitamin C. An infant with early signs of the disease loses his appetite and cries when his arms and legs are moved. Signs and symptoms of scurvy are :-

1. Spongy bleedning gums and loose teeth .
2. Bleeding under the skin and into various tissues.

3. Pain and swelling of the joint.
4. Slow healing of wounds or breakdown of old wound scars.

Treatment is with ascorbic acid (Vitamin C) tablets or multivitamin tablets and advice about diet. Infants who are not breast fed need vitamin C. and it can be given in the form of fruit juice or greens juice. Those recovering from illness such as diarrhoea, or from wounds, need more of this vitamin.

f. Vitamin B deficiency:-

i) Thiamine deficiency:-

This is common where people eat a lot of raw polished rice as in parts of Andhra Pradesh early symptoms are:

1. Beri Beri indicates by edema or swelling all over the body in wet type. There is paralysis in dry type. Infantile beri beri can result in early sudden death due to enlarged heart.
2. Loss of appetite.
3. Tingling hands and feet, or numbness.
4. Restlessness and general weakness.
5. Breathlessness due to heart enlargement.
6. Encephalopathy may be resulted.

In this deficiency, riboflavin and nicotinic acid deficiency is also present. So vitamin B complex is necessary.

ii) Riboflavin deficiency:-

Signs and symptoms of this deficiency:

1. Angular stomatitis - sore white patches at the corners of the mouth.
2. Glossitis - Swollen, sore tongue.
3. Redness and burning sensation of the eyes.
4. Dermatitis - skin lesions.

iii) Nicotinic Acid deficiency:- The disease caused by this is called pellagra. But it takes some time to develop. The signs are:

- Soreness of the tongue with indentations made by the teeth
 - Pigmented scaly skin and diarrhoea. Skin becomes pigmented and scaly on parts of the body exposed to sunlight that is hands, feet, face and neck.
 - Pigmentation has a symmetrical distribution.
 - In severe cases, mental disturbance. At last cause death.
- Vitamin B complex should be given.

iv. Folic acid deficiency:

It causes anaemia among poor people and pregnant mothers.

Treatment : Iron and folic acid tablets should be given.

v. Vitamin B₁₂ Deficiency:

It causes pernicious anaemia i.e., markedly decreased

number of red blood cells.

- Affect the nervous system including spinal cord.

vi. Mineral deficiency:-

a) Calcium deficiency: This may cause

1. Stunted growth in children.
2. Rickets (due to vitamin D deficiency).
3. Tetany:- Nervousness, muscle, twitchings and

spasms.

4. Osteoporosis :- Brittle bones so that fractures occur with minor accidents.

5. Interference with blood clotting.

6. Refer to the doctor is important.

b) Iron deficiency:

Insufficient iron in the diet is a common cause of anaemia those who lack iron look pale, easily get out breath and feel tired. Children who are anaemic are often sick.

Normally the iron in our bodies is used over and over again and we need little extra from our diet, but in the following circumstances iron is lost and anaemia is caused unless more iron is taken into the body,

1. Bleeding of any kind, including menstruation, piles trouble and dysentery.
2. Disease such as malaria and hook worm, when blood is destroyed.
3. In pregnancy because the foetus takes iron from the mother.

Growing children need extra iron to make blood, and anaemia is common especially after the age of 3 or 4 months when the iron stored in the liver is used up. There is very little iron in milk and other foods must be given to these young children.

c. Iodine deficiency:

Lead to swelling of the thyroid gland in the neck, a condition known as goitre.

- During pregnancy the lack of iodine can cause cretinism in the body and mental retardation may be caused. In India 9 millions of people are estimated to be affected by goitre.

Goitre may be prevented and cured by the regular use of iodized salt in the diet of people who live in areas of iodine deficiency. 1992 National Policy laid to prepare only iodised salt and condemned using common salt. The National Goitre control programme (1962) iodized salt is supplied freely in endemic goitre areas, with the help of UNICEF.

ANAEMIA IN WOMEN:

Many women are anaemic. The condition is usually connected with pregnancy and childbirth.

Besides menstruation, blood may be lost due to abortions or delivery and not made up. The growing foetus and breast feed child also takes nutrients from the mother.

To detect anaemia in women:

1. Notice if she looks pale, gets tired easily and has little energy.
2. Examine the conjunctiva by pulling down the lower eyelid (with clean hands).
3. Examine the mucous membrane of the mouth by pulling down the lower lip.
4. Find out the haemoglobin percentage by using a Talquist colour scale.

Iron Deficiency Anaemia is the most common type. Iron and protein are both necessary for the formation of haemoglobin.

Folic Acid is used vitamin necessary for the formation of red blood cells. Pregnant women need extra Folic acid as well as iron to meet the needs of the foetus for its blood.

Vitamin B₁₂ deficiency causes the disease called Pernicious anaemia. This vitamin is also important for making red blood cells. The richest source is liver, because vitamin B₁₂ is stored in the liver.

Treatment

Pregnant and nursing mothers, also family planning acceptors who have below 12 gm (80%) haemoglobin are eligible for free iron and folic acid tablets.

If the haemoglobin is below 10 gm (70%) refer to the health centre or hospital. Those suffering from pernicious anaemia need regular injections of vitamin B₁₂.

Health Teaching related to Treatment:

1. Iron and folic acid are both needed to improve the blood and overcome anaemia.
2. The tablets must be taken daily, and because they may irritate the stomach they should be taken at meal times with food.
3. The tablets will make the faeces black, but there is no harm in this.
4. The tablets are harmful to small children and so must be kept out of their reach.
5. In addition to the tablets, foods rich in iron such as dark green leafy vegetables should be eaten daily.
6. Continue the treatment for three months, when the blood test

for haemoglobin is to be repeated.

In addition, teach women the importance of spacing the family, to enable her to regain health and strength.

Health Workers Role

1. Encourage parent to bring all infants and pre-school children to the sub-centre for checking.
2. Regularly weight and measure infants and pre-school children and record on the 'Road to Health' chart.
3. Measure the arm circumference of children 1-5 years and record.
4. From the observations, detect early cases of malnutrition and give the appropriate treatment and health teaching.
5. On village and home visits, observe carefully all children, pregnant and nursing women. Identify case of malnutrition and anaemia, and make sure they receive treatment.
6. Look for malnutrition in children, especially when a child is :
 - a. a twin, low-birth-weight, or has no living parents.
 - b. one of four or more children in the family.
 - c. having a sister or brother who is less than one year younger.
 - d. having a sister or brother who is malnourished.
7. Look for malnutrition or anaemia in a pregnant or nursing woman who
 - a. has a history of stillbirths, abortions or haemorrhage.
 - b. has had four or more pregnancies.
 - c. had her last delivery less than a year ago.
 - d. is a widow or separated from her husband.
 - e. in pregnancy is not increasing in weight.
8. Identify cases of nutritional deficiencies, especially signs of Vitamin A deficiency. Refer all severe cases immediately to the health centre or hospitals.
9. Give vitamin A solution 2 ml. to all children 1-5 years once every six months (but not more often) and record the details. Give also to all children and adults in whom there are signs of vitamin A deficiency.
10. Be always prepared to give dietary advice to individuals and families with nutritional deficiencies, and where needed, to give multivitamin tablets or other treatment.
11. Help mothers who themselves or their children are malnourished, with practical dietary advice and with demonstrations whenever possible, of balanced meals.
12. Be an example in the community for improving nutritional status practise what you teach.

13. Have a good programme of nutrition education, focussing on target groups, mothers, grandmothers, dais, school teachers. Take every opportunity for nutrition education in homes, clinics, school and community centres.

14. Evaluate the health education. Simple methods include checking the weightss of children and when visiting homes see if mothers know and are carrying out what has been taught.

CULTURAL FACTORS, FOOD FADS AND HABITS

The foods eaten by a family depend a great deal on their religion, social customs, traditional beliefs, family habits and food fads. Some traditional food habits are good, but others are not so good and may be harmful. We have to understand the customs and beliefs of families before starting nutrition education. Religion has a great influence on food habits in all parts of India. Hindus do not eat beef, and Muslims have no pork. Fasting at certain times is a practice in some religions. Muslims consider that eating and drinking from a common dish or cup is a sign of brotherhood. Vegetarianism is honoured among Hindus.

Vegetarian and Non-vegetarian Diets:

Some families are pure vegetarians, taking no milk, eggs, meat, fish, poultry etc. Such families have a balanced diet only if they eat a good mixture of foods containing plant proteins at every meal. If enough pulses and nuts, especially soyabean or ground-nuts, are added to the staple food, the diet can be a balanced one.

Vegetarians who include milk, and more so those who include eggs, can more easily have a balanced diet.

Non vegetarians may include as much as they can get of milk, eggs meat, chicken and fish.

In developed countries, non vegetarians sometimes eat too much of the animal protein foods, and may become sick with hypertension, heart disease or gout.

Food Habits and Customs:

It is common in India for the men to eat first, next the children, and last the women. This means that even when pregnant or lactating, many women have a very poor diet.

During pregnancy, it is thought that the women needs to eat less so that the baby will not grow too big and cause a difficult delivery. In some societies foods such as eggs, fish, meat, milk and leafy vegetables are not allowed during pregnancy. Papaya fruit is thought to produce abortion and should not be eaten by pregnant women.

After giving birth, the mother may be given a diet of only

bread and coffee or chappati with a watery curry.

There are harmful practices also related to the feeding of infants and children. Some families believe that the baby needs nothing more than breast milk for the first year of life. If the mother becomes pregnant breast feeding is stopped suddenly, and the child is expected to eat the same meals as the family.

It is believed that a sick child should not be fed if he refuses food, and that a child with diarrhoea should be given liquids as it will make the diarrhoea worse.

Food Fads: -

In selecting foods, people are influenced by personal likes and dislikes, and fear of eating certain foods. Food fads often prevent people from having a balanced diet.

In some places there is fear that fish and milk taken together will cause leprosy or white patches (leucoderma). Others think that drinking a lot of water makes a person fat. Many people eat only white polished rice as staple food, and refuse other staple foods.

There are different beliefs about 'hot' foods and 'cold' foods. Hot foods may include wheat, meat, eggs., nuts, and oilseeds, and are thought to increase body heat and cause boils and fever. Cold foods include fruits, vegetables and milk, and these are thought to reduce body heat and cause cold, sore throat or cough.

There is not scientific basis for these beliefs and fears, but they add to the problem of malnutrition. They can only be overcome by nutrition education. For example without condemning the belief in 'hot' and 'cold' foods, we can tell people about another way of grouping foods: body building, energy, and protective foods.

Food Adulteration:

Food adulteration means any practice by which the quality of food sold is changed, or is given a false label so that the person buying the food is deceived.

The prevention of Food Adulteration Act lays down certain minimum standards, and any food that does not meet the standard is said to be adulterated. The persons responsible can be brought to trial and punished severely. The aim of this is to try to ensure that people get proper nutritive value in the value in the foods they buy, and to avoid danger to health.

The Health Worker should be alert to local food adulteration practices. This subject should be included in health educa-

tion of the community, with the following points:

1. Type of foods which may be adulterated and in what way?
2. Simple methods of finding out the adulteration.
3. The action to be taken:
 - a. The food may be rejected at the time of purchase.
 - b. A sample may be shown to the Health worker or village head.
 - c. The village council members should gather evidence from more families, and make a report to the health inspector.

Food adulteration practices vary in different areas. Here are a few examples and hints on detection:

1. Milk is often watered and may have powder of some kind added to it. When it is boiled, it will appear different from pure milk.
3. Rice or wheat often has stone chips and soil added. This can be found out when washing and cleaning the grain.
4. Chilly powder may have powdered brick added. When it is mixed in water the brick powder does not dissolve.
5. Ghee is adulterated by adding pork fat or dalda. On heating, the smell and taste will be different.
6. Coffee may be mixed with the skins of tamarind seeds, because it causes paralysis if taken for a long period.

Nutrition Education

Nutrition education is of prime importance in improving the health of families and of the communities.

FACTORS TO BE CONSIDERED:

The Health worker will need to keep in mind the following factors in relation to nutrition education.

1. Culture, religion, food habits and fads.
2. Foods available locally, and water supply.
3. Educational level of the groups.
4. Economic status of the families.
5. Land available for food production.
6. Housing and environmental sanitation.

PRINCIPLES OF NUTRITION EDUCATION AND OPPORTUNITIES:

Principles include the following:

1. First observe and ask questions to learn about the culture and food habits of the people, and what food are available?
2. Do not expect people to change food habits easily. New ideas should be introduced gradually, and only one thing taught at a time. Any suggested changes should be acceptable, and integrated into the present cultural practices.
3. Help people to see that good nutrition is important for them, eg.

if they want their children to grow strong and do well at school, enough of the right kinds of foods must be given to them.

4. Find out the local food words so that there will be good communication.
5. In teaching, use actual foods whenever possible, especially home produced foods. Teach also with nutrition posters, flip charts, puppets role play etc.
6. Always encourage questions and discussions, to clear doubts. Ask those who have tried out something new to tell others about it.
7. Link your teaching on nutrition with MCH activities and with other health education.
8. Do not teach people things it is not possible for them to do, nor about foods they cannot afford to buy or cannot get.
9. Follow up and find out if families are making the needed changes in food practices. Use the information to modify your teaching.

Opportunities for nutrition education are as follows:

1. When visiting families for any reason, the Health Worker may help them in learning better budgeting selection, storage, preparation and cooking of foods. VHGs and AWHs who have been specially trained in nutrition can help the mother in practical ways.
2. In the antenatal clinic and at the preschool clinic, there will be opportunities for both group and individual nutrition education.
3. A nutrition education programme for mothers, including cooking demonstrations, can be arranged at the sub centre, Mahila Mandal, or other centre.
4. Nutrition education is an important part of the school health programme. It may be linked with a school midday meals programme.
5. On village visits, the Health worker should visit any Balwadis or Anganwadis, see what diet is being served, and give teaching as needed.
6. If there is a nutrition Rehabilitation Centre, this gives opportunity for intensive teaching and supervision of mothers in feeding her child in a better way.

METHODS AND MEDIA

As we have seen it is very difficult to get people to change their dietary habits. Therefore the methods and media used for health education need to be selected and used with great care. As far as possible it is best to get people involved in discussing

the issues and in practical activities.

In a class of mothers, most of them will have similar problems, perhaps connected with water supply, or fuel, or high price of foods. Some mothers may have some special problems.

Individual teaching is very useful to help mothers to solve some special problem, such as worry that her child is not growing well. for pregnant and nursing mothers, and those with children who are often sick, and likely to be malnourished, individual nutrition education is most important.

Individual nutrition education is best done in the home, where you may find various factors in the problem such as poor environmental sanitation, or no place to store food.

Cooking demonstrations are very useful for a group of mothers.

1. Have the class in a place where mothers can sit comfortably. It may be under a tree in the village.
2. Cooking utensils and fuel should be familiar to them, perhaps borrowed from a nearby home.
3. Select a recipe using foods that are locally available, in season and not costly.
4. Select a preparation the mothers are interested to learn to do, and which will help them to feed a small child or the family in a better way.
5. On a clean surface place the foods to be used and the utensils so that everyone can see clearly.
6. Make sure you wash your hands before starting the preparation, so that the mothers learn to practice clean cooking.
7. Keep foods covered to protect from flies and dust.
8. When the cooking is over, taste some and invite the mothers also to taste it.
9. If possible let one or more of the mothers also demonstrate the preparation.

Kitchen Gardens: Have a model kitchen garden at the sub centre if possible. Encourage village leaders to organise a kitchen Garden competition and give prizes.

Other methods of nutrition education which are useful and interesting for groups such as mothers or school children include puppet shows, role plays and folk dances with songs.

Classes for Fathers: Fathers also need to know what foods are best for infants, children, pregnant and nursing mothers. They also need to understand the need for mothers to be

given enough money to buy foods in adequate amounts, for everyone in the family to have a good balanced diet. Perhaps the men will like to come to a special meeting where they can learn these things. This will go a long way in improving family nutrition.

SUMMARY

1. Protein energy malnutrition is wide spread in India among 6 months - 3 years children.
2. Poverty, ignorance, and ill taracy are main causes of PEM.
3. Ecomic development, nutrition and health education can prevent PEM.
4. All the vitamin deficiencies leads to diseases.
5. Hyper vitaminosis also leads to diseases.
6. Mineral deficiencies effect the growth and developments of the children and effect the physiology of the body.
7. Iron deficiency cause anaemia.
8. Iodine deficiency cause goitre, mental retardation.
9. The health workers role in prevention of defincies and malnutrition.
10. Food adultation means any practice by which the quality of food sold is changed, or is given a false label so that the person buying the food is decided.
11. The various cultural factors according to their religion, social customs, traditional beliefs, family habits and food fads.
12. Importance of nutritional educational to the community is important.
13. Principles of nutrition education and opportunities are very important to the community.

QUESTIONS

1. What is PEM and how will you prevent and control the PEM?
2. Write in detail about vitaminA deficiency and how can it control?
3. What are the effects occur due to vitamic C deficiency?
4. List out the various deficiency disorder occur due to mineral deficiency.
5. Write in detail about iodine deficiency.
6. What is the health workers role i prevention of deficiencies. and malnutritions?

UNIT - VI Hygiene

(a) Introduction to Hygiene:-

Hygiene is the Science of Health and its preservation. The term also refers to practices that are conducive to good health. Good personal Hygiene usually means those measures a person takes to keep his skin and its appendages (his hair, finger nails, and toe nails) and his health & mouth clean and in good condition.

Physical health is an important component of total health. The subject of physical health includes care of the skin, hair, teeth, eyes, ears, hands, feet, rest & sleep, exercise, recreation & posture. The students must know not only the anatomy of the body organs but also know how these can be maintained in a state of optimum health.

Definition:- The science of preserving and promoting health is known as hygiene,

Hygiene has two aspects

- (1) Personal Hygiene
- (2) Environmental Hygiene

The Subject of personal hygiene is physical health and how to maintain it.

Preventive medicine is defined as "The Science and art of preventing disease,

Prolonging life & promoting physical and mental health and efficiency" Where as in preventive medicine the focus is on the individual in community health.

Personal Hygiene helps in the following Manner:-

- (1) To maintain a good and clean physique.
- (2) To maintain good muscle strength
- (3) To maintain clean mouth and Teeth free from carries.
- (4) To keep the eyes, ears and nose in a healthy condition and free from infection
- (5) To maintain a healthy skin
- (6) To preserve ones energy and not get tired in carrying out daily tasks
- (7) To maintain resistance and prevent infection

Principles relevant to Hygiene:-

- (1) The intact skin is the body's first organ to defense against infection and injury.
- (2) Individual differences exist in the nature of the skin and its appendages.
- (3) Changes occur throughout the life span in the skin, mucous membrane, hair, nails and the teeth.

- (4) The health of the skin and mucus membrane is highly dependant on adequate nourishment, fluid intake and exercise.
- (5) A person general health affects both the status of his skin and appendages, teeth and mouth.
- (6) Hygiene practices are learnt.
- (7) Hygiene practices vary with cultural norms, personal values and ability to maintain good habits of cleanliness and grooming.
- (8) Drugs and other form of therapeutic treatment affect the skin and its appendages.

Concept of health and disease:-

It is important for health workers to understand certain concepts.

Health:- According to who the definition of health is as follows:

"Health is a state of complete physical , mental and social well being and not merely an absence of disease or in ferity".

Some of the other definitions of health are as follows:-

- (1) Health means well – ness, the opposite of illness
- (2) The condition of being sound in body, mind or spirit, especially freedom from physical disease or pain
- (3) Health is a positive state of well being that is felt physically, mentally, socially and spiritually.
- (4) Health is a way life, requiring a knowledge of body, functions and how to keep fit, and the will to cultivate healthy habits including diet and exercise.
- (5) Health is related to a person's self realization, relationships with others and feeling of giving a worth while contribution to the society.
- (6) Health is an individual responsibility, and if a person makes no effort to be healthy, no one can provide him with health.
- (7) Health is a positive quality of life which helps us to live life to its fullest and serve our fellowmen to the best of our ability.

Nursing:- Most people think of Nursing as caring for the sick or helping the doctor in the care and treatment of patients. It is much more than this Nursing includes carrying activities in hospital and in community. Nursing includes preventing illness, disability and death. Nursing

responsibility is also includes health education, research, training and supervision of health personnel and administration.

Nursing is helping a person with those things he cannot do for himself, but are necessary for him to get back his former health and independence.

In Nursing we should try to do even more. We should do, all we can to help people to live a life that is fully healthy in body, mind and spirit and social relationship.

When nursing an individual we should remember his feelings and beliefs, try to understand his problems, also the needs of his family and of the community. Nursing is an important part of work of a health worker.

Concept of Disease:

There have been many attempts to define disease. Webster defines disease as "a condition in which body health is impaired, a departure from a state of health, an alteration of the human body interrupting the performance of vital functions". The Oxford English Dictionary defines disease as "a condition of the body or some part or organ of the body in which its functions are disrupted or deranged". From an **ecological** point of view, disease is defined as maladjustment of the human organism to the environment" (80) . From a **sociological** point of view., disease is considered a social phenomenon, occurring in all societies (81) and defined and fought in terms of the particular cultural forces prevalent in the society. The simplest definition is, of course, that disease is just the opposite of health - i.e., any deviation from normal functioning or state of complete physical or mental well-being - -since health and disease are mutually exclusive. These definitions are considered inadequate because they do not give a criterion by which to decide when a disease state begins, nor do they lend themselves to measurement of disease.

He WHO has defined health but not disease. This is because disease has many shades ("spectrum of disease") ranging from in apparent (sub clinical) cases to severe manifest illness. Some diseases commence acutely (e.g., food poisoning), and some insidiously (e.g., mental illness, rheumatoid arthritis). In some diseases, a "carrier" state occurs in which the individual remains outwardly healthy, and is able

to infect others (e.g., typhoid fever). In some instances, the same organism may cause more than one clinical manifestation (e.g., streptococcus). In some cases, the same disease may be caused by more than one organism (e.g., diarrhea). Some diseases have a short course, and some a prolonged course. It is easy to determine illness when the signs and symptoms are manifest, but in many diseases the borderline between normal and abnormal is indistinct as in the case of diabetes, hypertension and mental illness. The end-point or final outcome of disease is variable – recovery, disability or death of the host.

Distinction is also made between the words disease, illness and sickness which are not wholly synonymous. The term "disease" literally means "without ease" (uneasiness) – disease, the opposite of ease – when something is wrong with bodily function. "Illness" refers not only to the presence of a specific disease, but also to the individual's perceptions and behavior in response to the disease, as well as the impact of that disease on the psychosocial environment (82) "Sickness" refers to a state of social dysfunction. Suffer (83) has suggested the following Usage:

Disease is a physiological/psychological dysfunction;

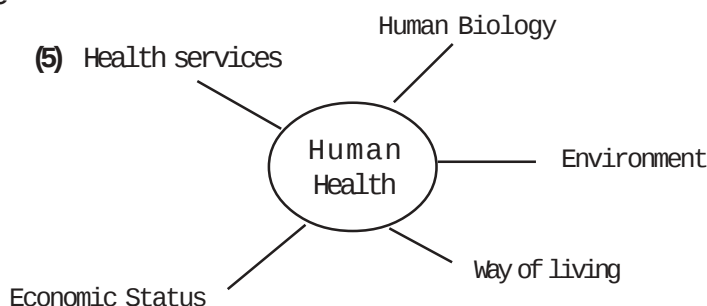
Illness is a subjective state of the person who feels aware of not being well;

Sickness is a state of social dysfunction, i.e., a role that the individual assumes when ill ("sickness role").

The clinician sees people who are ill rather than the diseases, which he must diagnose and treat (84). However, it is possible to be victim of disease without feeling ill, and to be ill without signs of physical impairment. In short, an adequate definition of disease is yet to be found – a definition that is satisfactory or acceptable to the epidemiologist, clinician, sociologist and the statistician.

Factors influencing health and healthful living:- The individual and group health is determined by :

- (1) Human biology
- (2) Environment
- (3) Way of living
- (4) Economic status



a 1. Human biology

Human Biology:- Hereditary characteristics that is height, weight, color of the skin, blood groups etc. are determined by gene which are coming one from mother and one from father. The genetic constitution of man is laid at the time of conception. So the state of health therefore depends partly on genetic constitution inherited by the individual. There are inherited diseases like diabetes, cleft palate, epilepsy and hypertension etc. or genetic defects.

Environment:- In the environment, the various living and non living things surrounding man plays an important role. Environment implies air, water and soil but also social and economic conditions in which man lives. This relation between man and environment is called "Human ecology". The man's environment is divided into three major components.

(a) Physical Environment:- This is the part of man's external environment eg: water, air, housing, climate, soil, nutrition etc. Man has altered everything in his physical environment due to air pollution, water pollution, excessive noise, radiation hazards are main and man has become ill health

(b) Biological Environment:- This is the living component of man's external environment. It consists of plants, animals, insects, bacteria and virus with which man is in constant relationship. When the delicate balance is disturbed man's health is affected.

(c) Social Environment:- This pertains to man in

relationship with his fellow human beings. The social environment is quite broad and ill defined. It is composed of customs, habits, income, occupation, religion, standard of living, human behavior, availability of health services, and social and political organizations. Maladjustment may result in problems like drug addiction, alcoholism, crime, violence, suicides, divorces, mental illness, hypertension, peptic ulcer etc.

When man has controlled physical and biological environment and also social environment, the health and well being of the individually maintained.

- (3) **Way of living:** - Health may not be given by one person to another person. It depends upon the way of living, the level of personal hygiene education and the life style of the people. People must maintain the rules of hygiene, eating, balanced diets, healthy habits, immunization and periodic medical check-ups by increasing standard of living can control tuberculosis and not smoking can decrease the cancer and heart disease. By way of life the people can raise their health status.
- (4) **Economic status:** - It is known that people who are rich enjoy the better health than those who are poor. This is due to economic status. Poverty leads to sickness and sickness leads to poverty.
- (5) **Health Services:** - In India health services are provided by physicians, nurses, health assistants, health workers, dais etc. The services are both curative and preventive. They are medical care, control of community diseases mother and child health and family planning, improvement of environment, school health services, collection of vital statistics and health education.

(b) Physical Health

- (1) **Skin Care:** - To preserve cleanliness of skin and to keep healthy, regular baths and proper clothing are necessary. Otherwise, the sebaceous glands will be blocked with that, which in turn will interfere with the excretion process and further favor the occurrence of certain skin condition such

as scabies, Impetigo, prickly heat and ring worm etc. Skin is the one of the most vital organ of the body the function of the skin are:

- (1) It protects the body from heat, cold, humidity and entry of micro organisms
- (2) It acts as a sensory agent for touch.
- (3) It is having a good source of vitamin D which is converted by using the sunrays

Skin Types:- there are four types of skin.

- (1) Normal Skin:- It is found in babies and in small children. It is neither too dry nor too greasy.
- (2) Dry Skin:- It is never moist to be. If the skin is dry, one should not apply the soap. Use plenty of vegetable oils and massage the skin frequently.
- (3) Oily skin:- It is due to over activity of oil glands. So washing with the soap and water is increased to prevent oil secretions and stagnate dirt.
- (4) Combination skin:- Often times, we come across a combination of the dry skin and oily skin.

Bathing of the skin:- Skin is in contact with the external environment and accumulates dirt. By taking daily bath with soap and water, not only remove dirt and free from all body odors. Soap is good surface cleaning agent. It gives a sense of freshness and well being and free from infection. Baths help not only in cleanliness, but also in maintaining good circulation of blood, tone of muscle, improves appetite. Baths may vary according to climatic conditions and be classified according to condition of the patient and temperature of the water.

Purpose of bath:-

- 1 To remove waste products and clean the skin.
- 2 To refresh and promote relaxation.
- 3 To stimulate circulation.
- 4 To observe the condition of the skin
- 5 The best time for the bath is either before breakfast or at least one hour after meals.

There are four types of baths:

1. Cold bath:- In this the temperature of the water must be 65 degrees F. cold baths give a mild shock causing contraction of superficial blood vessels but soon the vessels dilate

giving a feeling of warmth and shivering. The bath should not longer more than 3 minutes because this may cause decreased temperature or fall of temperature. It is not prefer for heart patients.

2. Warm Bath:- The temperature of water should be 100 degrees F. It is stimulating the skin and increases the blood circulation. Warm baths may be taken at any time mainly it prefers in winter season. If the patient is suffering from fever, cold, body pains and any type of injuries may prefer the warm bath to relieve the clinical signs and symptoms.

3. Hot bath:- In this type the temperature of the water must be above 100 degrees F. It should be taken at night. In this the blood vessels are dilate and causes decreased blood circulate to the brain. Hot baths remove fatigue very easily and it should not be taken soon after use.

4. Oil bath:- These are very popular in India it helps the body to keep cool and soft. It is best to be taken during the winter season. In this type some vegetable oil or groundnut oil or mustard oil is applied and do massage thoroughly. So that the oil must be absorbed by the skin. Some times turmeric powder and grams powder can also be used while massaging.

5. Protection of the skin:- The skin must be maintain and protected by the following ways:

1. Regular baths:- A daily two times of bath is essential in India because of the hot climate. It keeps the skin clean and prevents infections such as boils, scabies, ringworm and itching.

2. Oil baths:- Periodical oil baths are beneficial especially during winter months, for healthy skin and prevention of dryness of the skin.

3. Balanced diet:- A daily balanced diet and a diet included vitamin A rich foods should be taken to promote health of the skin.

4. Mosquitonets:- The skin is a portal of entry to certain communicable diseases such as malaria and Filarial through insect bites. So the people must be used mosquito nets to escape from the insect bites and also prevent the communicable diseases.

5. Protective clothing:- People who are working in industries and factories, those who come in contact with acids, alkalis and other chemical and physical agents should wear protective cloths to prevent accidents and injuries.

6. Cosmetics: - As long as there is no allergy and skin irritation, they should be no objection to use cosmetics. Over use of cosmetic may cause more harmful than useful because this may blocks the sweat glands.

7. Clothing: - Clothing is one of the essential needs of the man. The main purpose of clothing are:

1. To protect the body from climatic factors such as extreme cold and heat, to protect from injuries and bites of animals and insects.

2. To maintain the body heat.

3. For personal value such as ornamentation and decoration.

Choice of clothing is important and the materials for clothing should be appropriate for example wool is best clothing for winter season. Cotton cloths are best in summer season. So one should wear clean cloths after bath.

(2) Care of the Hair: - The condition of hair often reflects the general condition of the body and its nutritional status. In children who have streaked yellowish brown dry hair shows deficiency of vitamins. In kwashiorkor hair become thin, sparse and easily pluck ability. Hair breaking shows that the shafts are not receiving sufficient nourishment. Graying or loss hair pigment is due to deficiency of diet, physical and mental diseases. Using soaps, shampoos and soap nuts should do care of the hair. Soaps are mostly made up of with animal or vegetable oil such as coconut oil, olive oil, glycerin and sandalwood. A good shampoo is prepared from synthetic detergents and it removes the surface grease, dirt and skin debris with out affecting the scalp. Soap nuts are natural and causes no harm to hair and remove dirt thoroughly.

After using these washed hair thoroughly with warm water. Before and during washing, the scalp should be massaged properly with the fingertips. The care of the hair is regular washing with soap for twice a week. Massaging the scalp is also useful procedure. It is a type of positive exercise.

It stimulates the blood flow and improves the nutrition of the hair. Oils are easily absorbed to the skin. So once in a week massaging the scalp with coconut oil by finger nails. Good scalp hygiene prevents infections like scabies, head lice, ringworm and dandruff.

Dandruff: It remains on the scalp, especially scalp is oily, it may become infected and the loose scales afford a culture media for

many types of bacteria including moulds. Regular washing with shampoo can control dandruff. Shampoo containing selenium sulphide and sulphur are available in the market to treat dandruff, but should not be used regularly.

Care of the pediculosis:- For lice or pediculosis, one part of kerosene, one part of the pure oil may be rubbed well into the hair at night, covered with a towel or a cap, and the hair is washed next morning. Warm vinegar will soften the nits and then they can be washed off the hair. The more recent treatment is 10% DDT dusting powder applied to the hair and covered with a towel for several hours. The hair can be combed with a fine toothcomb and DDT applied again a week later. In the meantime the hair should not have been washed after the first dusting so that the new lice can be killed as they hatch.

3. Dental care and oral Hygiene:- The most 2 common dental ailments are dental caries (tooth decay) and periodontal disease (gum diseases or pyorrhea). Dental hygiene is an important aspect of personal health of an individual. Good oral hygiene implies sound teeth and healthy gums with healthy surrounding tissues. A physical act of chewing promotes saliva and gastric secretions, which helps in digestion. Teeth are not only useful for mastication but also for good appearance and clear speech. Improvement of oral hygiene, improves the general health. Dental Disease in children is often continuing into the adult life. Some of the dental disease conditions are as follows:

1. Dental Caries:- Dental caries is the most destructive of all dental diseases, leading to cavity formation and tooth decay. Dental caries is due to the action of acids on tooth enamel and these acids are produced by certain mouth bacteria acting upon food particles lodged in the mouth. Due to bad oral hygiene dental caries develop. If the acids secrete for a prolonged period and touching the enamel, a cavity develops on the enamel surface. Once the enamel is damaged, it cannot be repaired. That means dental caries may be developed due to bad oral hygiene. A lot of research has shown that sugar consumption can increase caries, particularly when the sweet food is in a sticky form.

2. Periodontal disease:- This disease is also called as pyorrhea or pockets of pus around the teeth. It develops very slowly. It is a painless condition and unnoticed by the patient for a long time. It is responsible for more tooth loss than any other single factor. It

also affects supporting structures surrounding the teeth which causes tooth fall. Pockets of pus around the teeth a cause septic to the individual. Hygiene of the mouth is essential for the control and prevention of this disease.

3. Halitosis:- It means bad breath. It is due to poor oral hygiene, periodontal disease, sinus infection, tonsillitis, and infection of nose and throat. These conditions are quiet common in India and often begin in early childhood.

The care of the teeth explains as follows:-

- (1) **Tooth brushing:-** Teeth should be clean at least twice a day. Many people in the village use tender twigs of neem or babbul (acacia) as a toothbrush, some use ashes, some charcoal and some tooth powders. The toothbrush is the best use for removal of food debris and dental plaque, which accumulates around the neck of the teeth. Along with the toothpaste and powders, tooth brushing is ideal for cleaning the teeth. The bristles of the toothbrush should be soft that is it should not be too sharp or too hard. For brushing the teeth generally a vertical or circular brushing techniques are recommended. Tooth should be clean and the mouth should rinse soon after food is eaten. The tongue should be scraped or brushed and the mouth should be gargled with Luke-warm water to keep the throat clean.
- (2) **Use of fluorides:-** Where ever drinking water contains less than 0.5 mg of fluorides per lt., excessive dental caries has been observed. The optimum level of fluoride in drinking water is between 0.5 to 0.8 mg per lt. Fluorides decreases enamel solubility in acids. Deficiency of fluorine in drinking water can be rectifying by applying topical fluoride on the tooth surfaces. The use of fluorides is a valuable means of caries prevention. A fluoride present in the drinking water act both systemically and locally.
- (3) **Regular Dental checkups:-** Dental checkup twice a year is recommended for early diagnosis and treatment of dental ailments. In some countries, regular dental

services or check ups are provided to all school children through school dental nurses and dental hygienists.

- (4) **Diet:** - The relation between the diet and dental disease is well known. In cities the dental disease are increased. Excessive intake of refined carbohydrates such as sugar sweets, jilebees, pastries, cakes, chocolates and biscuits promotes the dental caries. Soft and sticky foods that adhere to the teeth causes tooth decay. In take of fruits, vegetables like carrots, cucumber, sugarcane stick etc. reduces the frequency of dental caries. These foods are called natural toothbrushes and their daily intake should be promoted.
- (5) **Habits:** - The habit of holding sweets in the mouth causes a marked increased in tooth decay. Holding a feeding bottle with milk or sweetened juices for a long time sucking may cause dental caries. This is called by dentists "baby bottle syndrome". The habit of eating snacks frequently in between meals is also a bad habit. The habit of chewing betel leaves and tobacco is an important cause of bad oral hygiene in India. The foundation of good oral hygiene is laid in early childhood.
- (6) **Care of dentures:** - Dentures are man-made substitutes. All dentures are potentially traumatic. These are removed after meals and thoroughly brushed. All dentures must be removed at night because they can act as incubators of bacteria. After removing the dentures the mouth should be rinsed thoroughly with warm salt water. Don't place the dentures in boiling water. Dentures can be washed with taking soda or any washing up detergent.
- (4) **Care of the hands and nails:** - Hands and nails are never free from micro organisms. They pick up dirt and bacteria easily because they come and contact with many things. Therefore they should be kept clean, by thoroughly washing with soap and water, especially before taking food. After attending the toilet, hands should be well with soap and water. The nails collect dirt, so it should be kept clean by gentle scrubbing with nailbrush. The habit of biting nails, and putting fingers in the nose or ears and mouth is unhygienic habit and this should discourage.

Nails also require strict cleaning. They need to be cut short periodically. Otherwise dirt will be lunge under long nails

which is unhygienic, helping to harbor harmful organisms of typhoid, cholera, dysentery, diarrhea and various intestinal worms. Long nails can also be dangerous by scratching or hurting the skin of a patient while giving care especially in cases of newborn and children.

Hand washing: In the community health nursing practice if a nurse has to wash hands before carrying out any procedure, a following technique can be followed, that is wet the hands from elbow towards fingertips and apply soap well. Rub the hands thoroughly and wash the tips of fingers and thumb in and out, then wash between fingers and arms rotating motion, a rinse from elbow to the downward this helps to remove dirt. Repeat it whenever necessary to remove adhered dirt.

(5) Care of the Elimination: - The organs of elimination are the lungs, skin, kidney and the intestine. These are involuntary acts. The elimination of faeces is a voluntary action. Lungs eliminate carbon dioxide, skin eliminates sweat, and kidneys eliminate urine.

Kidney: - Proper maintenance of skin as mentioned earlier and good exercise will promote elimination of wastes thoroughly by kidneys. The kidneys excrete 3-4 pints of water per a day.

Bowel: - Forming a regular habit of emptying the bowels each day at about the same time will help in avoiding constipation. Some guidance and a bit of permissiveness will help the child to establish his own schedule. Irregularity of bowel habits may cause the individual to have headaches, be impatient, low spirited, or lack of energy and be unable to concentrate and study. It is wise to clean from the vagina to rectum so as not to infect the urethra or vagina from the rectum. The hands need to be washed well with soap and water afterwards. Open field defecation is to be avoided.

(6) Menstrual hygiene: - The menstruating woman is considered unclean and is prevented from taking part in normal daily activities in some communities. It should be explained that menstruation is a normal physiological process. It should be explained that menstruation is a normal physiological process. The menstrual discharge is usually controlled by means of an absorbent sanitary pad or diaper, which must be frequently changed. Alternatively

an absorbent tampon may be placed in the vagina. Intra vaginal tampons fitted with a cord are available. Commercially they are easy to insert and remove. Intra vaginal tampons are popular because they are comfortable and convenient. Their chief advantage is that they cannot be used unless the hymen is torn or stretched. Vaginal douching is not only unnecessary at the end of the period or at any other time, but is positively harmful in that it washes away the natural protective discharge. The vagina can take care of itself, and it is remarkable how it cleanses itself of all the menstrual debris in the course of a few hours. Regarding sexual intercourse during menstruation, there is no medical reason to avoid, but only objection is the obvious aesthetic one.

(7) Posture:- It is defined as position of the body. It has relationship to one's personality. A good posture gives impression the back should be straight while sitting or standing and walking. A stooping position shows laziness or fatigue. Defects of posture includes curvatures of the spine, flat chest, stiff neck, stoop shoulders, knock-knees, head to one side. Bad posture caused bone diseases like osteomyelitis, TB and rickets.

Children often adopt bad postures while sitting, standing, walking and working. Such positions should be corrected early. The use of properly constructed school seats and desks, home and office chairs help in preventing postural defects.

One should make good posture a habit. Good posture is aided by a well-adjusted emotional life, general good health. If the posture is good it allows the body systems to function with the least expenditure of energy, thus reducing fatigue.

Exercise:

The aim of the exercise is to promote development of the whole body and correct the postures. It helps in people muscle form and body function especially in the sick to restore strength, correct deformities and also in certain individuals to reduce weight. An excess amount of exercise may cause sleeplessness or over fatigue.

Uses are:

- 1 Tones up the muscles
- 2 Improves blood and lymph circulation.

- 3 Improves the strength of the heart.
- 4 Ventilates the lungs.
- 5 Stimulates appetite
- 6 Promotes excretion of body waste from skin and kidneys.
- 7 Increases the muscular and mental co-ordination.
- 8 Facilitate relaxation and sleep.

There are many kinds of Exercises:-

These can be explained mainly under two headings

1. passive Exercise:

E.g : Body massage

2. Active Exercise:

These are four types;

Strengthen exercise, e.g. weight lifting

Speed exercise, e.g. Running

Dexterity, e.g. Boxing, shooting

Endurance These are two types

Yoga e.g. Asanas

Recreational e.g. Walking, swimming, games

Recreation:

Means relaxation and amusing oneself. It relieves mental tension and fatigue and provides a feeling of well-being. Recreation may be active or passive. Physical exercise is an active form of recreation.

Passive form of recreation includes listening radio, watching T.V. going cinema, or picnic, playing cards, reading etc.

There are recreation centers opened in many cities so that people can use their leisure time for improvement of their physical and mental health.

Rest and Sleep:

To maintain good health the body needs rest and sleep. We spend $\frac{1}{3}^{\text{rd}}$ of time in sleeping per day. During sleep, the body and mind are relaxed, repair and growth take place. Fatigue disappears. After sleep or rest we feel fresh and work better.

According to the age, sex, environment, family, nature of work the amount of sleep required. If facts school boy 9-10, adult 7-8 hours per day.

The sleeping bed should be flat and no sag in the middle and should not use too many pillows. Only one is sufficient.

During sleeping face should not cover, room should be dark, calm and quiet and well ventilated. Candles should not keep in the room. One should cultivate regular sleeping habits early to bed and early to rise. Drugs should not used to sleep.

Care of Eyes:

It has been said, "Eyes are the windows of learning" and "Eyes are mirror of the soul". Eye often reflects the physical health. It is clearly identified well or will, fatigue or dull.

Eye needs the care. When reading books they should be held 12 – 16" away from the eye at an angle of 45 – 75. Skin around eyes must be cleaned with soap and water or clear water.

Vitamin A foods are used for good eyesight and prevent infections.

The conditions, which may affect the eyes, are: -

1. Infections-conjunctivitis, trachoma, sty's
2. Injuries-corneal ulcers
3. Malnutrition-Night blindness, exophthalmia
4. Errors of refraction – short sightedness, long-sightedness.
5. Others- cataract, glaucoma.

Blinders:

There are 18 million blind people in India. The main causes are

1. Cataract.
2. Trachoma.
3. Others infections.
4. Malnutrition.
5. Injuries.
6. Glaucoma.

The tragedy is that much of the blindness is preventable through simple measures such as

1. Early diagnosis and treatment
2. Good personal hygiene.

3. Improvement in diet.
4. Control of flies.
5. Health education.

The care of the eyes consists of the following:-

1. Prevention and control of infections.
2. Injuries.
3. Eye strain
4. Good diet.
5. Squint
6. Regular check up

1.Prevention and Control of Infections:

Eye is delicate and sensitive organ. Trachoma is eye infections common in children. These are spread by using infected clothes, handkerchiefs, towels, and flies. Conjunctiva is an acute inflammation of the outer layers of the eye which is caused by bacteria, virus or allergy, following are eye injury.

The preventive measures are

- a. Early diagnosis and treatment until cure is achieved
- b. Health education towards of clean towels and linen, fly control and preventing and good personal hygiene.

2.Injuries:

During working or playing, eye is exposed to injuries. Industries, eye injuries are common; workers must be use protective glasses. In children eye injuries are due to firecrackers. While playing with bow and arrow cause eye injury. Foreign bodies also cause eye injury. To this washed the eye immediately with plenty of water, eye should not be rub. If foreign body does not come out, refer doctor immediately.

3.Eye Strain:

Reading must be done in good light to avoid eyestrain. Light should come from left and behind. Hold the book at 45 -75 degrees from the horizontal. Avoid reading from moving trains and buses or in lying positions. Eye must protect from direct exposure to sun light, glare extreme brightness. If desired wear glasses.

4.Good diet:

Eye diseases occur due to malnutrition. So vitamin A rich foods such as green leafy vegetables, fruits, milk and butter prevent deficiency diseases like neurosis, keratomalacia, night blindness.

5.Squint:

If there is a cross eye or squint, refer to specialist. This defect can be rectified by the use of glasses or eye exercises. In some cases, may be need operation. It should be treated early in the life.

6.Regular – checkup:

Regular check up by the eye specialist once a year until the age of 10 and there after every 3 years to early detection and treatment of eye diseases.

Care of the Ears:

The ear is an important sense organ of the body. It is useful not only for hearing, but also for body equilibrium. The ear is liable to infection and injury.

Infections of nose and throat are readily spread to middle ear and cause inflammation known as otitis media.

The ear problems are earache, discharge and wax and foreign bodies.

Care the ear comprises:

1. Keeping the ear clean.
2. Removing excessive wax carefully
3. Preventing entering of water into the ear during bathing.
4. protect the ear from exposure to loud noises.
5. Prevent and treating all nose and throat infections.
6. If the ear canal is having wax it must be cleaned. For wax removal put a drop of warm boiled coconut oil, olive oil or peanut oil or glycerin into the ear.
7. Teaching good habits are one should not put pencils matches, and other foreign bodies into ear. If any foreign body enter into the ear refer to a doctor.

Care of Nose and Throat:

Great care should be taken in blowing the nose. If possible, have disposable tissues for nasal discharge or cough. If not, rag

pieces may be used, placed in covered vessel of water after use and boiled for 10 minutes after the water bubbles then washed and hung in the sun to dry. Sari ends or fingers should never be used. When swimming keep water as much as out of the nose and throat and be sure the water is safe, (not contaminated) by waste materials. While the face is under water, expel air slowly and continuously through the nose. Breathe in through the mouth while the head is above water. Blow the nose gently after swimming. If there is any infection to nose or throat it may spread rapidly to ear. Treat the infection immediately.

Care of the Feet:

The human foot is composed of 26 bones. Connected by ligaments, muscles, blood vessels nerves. Bones are so arranged as to balance and support the weight of the body. If the foot are allowed to stay in a wrong position for a long time leads to poor posture.

To prevent diseases and for foot hygiene, the feet should be washed with soap and water, both at night and morning. The feet may be soaked in a dilute solution of formal in (table spoon of formal in to 250ml of water) for 15mts, then thoroughly dried and dusted with boric acid in talcum powder.

Special care must be taken in selection of shoes. Shoes must be broad – toed, not too – fitting. The socks should be clean and dry they should not too tight. Walking bare foot is unhygienic, Avoid cuts and bruises. If so they should be treated with mild anti-septic cream. If there are cracks use milk cream or coconut oil applied.

Summary:

- The Health worker should know the concept of health, disease and definition of hygiene.
- There are various factors influence the health and healthful living, those are environment, way of living, economic status and health services.
- To maintain a good health, the individuals should maintain the proper hygienic techniques.
- Physical health includes, care of skin, teeth, mouth, ear, nose, hands and nails, hair, feet, elimination, menstrual hygiene etc.

- The individual should maintain good erect posture for good impression.
- For maintain good physical and mental health to individuals exercises, rest and sleep, relaxation techniques.
- There are various types of exercises to practice in daily life

Questions:

- 1 Define nutrition and its importance?
- 2 Explain the concept of health and disease?
- 3 What are various factors influence health and healthful living?
- 4 List out the care given to various body organs and explain in detail about care of the eyes?
- 5 Briefly discuss about the importance of exercises, rests, sleep in the life of an individuals.

UNIT - VII

HYGIECNE

The periodic health examination:-

Periodical health examination should be done for every individual for early detection fo diseases and prove to give treatment nd prevention of diseases.

The individual should go throughly physical health examination in a year. The way health examination conducted is as follows:

1. Taking of patient history:-

That means, The collecting history from patient or his relatives which help in diagnosis of disease. The health worker can know the physical, mental and emotional state and socio economic influence after general observations, at the same time history of the patient can take all the information should record in patient chart. This information, taken together with examination of the patient will help in making an accurate diagnosis and giving treatment to be given or for referral.

In history the Health worker should take present, past and family history.

Recording:-

In the register of patient, name, age, sex, address and the main complaint and condition, action taken i.e., treatment given admission or referral are to be noted.

Physical Examination:-

1. Taking weight and measurement.
2. Taking temperature, pulse and respiration.
3. Checking development.
4. Observation and note the condition of patient from "Head to toe" i.e., hair, ear, eyes nutrition, skin, chest, abdomen, genetalia, limbs, nose and throat, temperaturetc.
6. Checking B.P.
7. If necessary other tests to be done.

Prepare equipment for examination and environment:-

Proper environment means:

Proide Privacy

Adequate lighting.

Equipment needed are :-

- B.P. Apparatus and stethoscope, disinfectant, swabs, soap, water and towel.
- Tape, X Ray form and lab forms.
- Patellar hammer, Ophthalmoscope.
- Torch light, tongue depressor, kidney tray.

Periodical health examination are done for the people of old age, children and every individual to sort out early detection of disease and prevent disease.

Immunization:-

Immunization is important in the specific control and prevention of communicable diseases. By immunization we mean making a person immune to a certain disease by giving the specific vaccine.

The Immunizations commonly used in India are as follows:

1. BCG Vaccine which protect against tuberculosis.
2. DPT vaccine or "Triple antigen" protects against Diphtheria, pertussis (whooping cough) and tetanus.
3. DT Vaccine protects against diphtheria and tetanus.
4. TT protects against tetanus.
5. OPV or sabin vaccine protects against poliomyelitis.
6. Typhoid Vaccine.
7. Cholera Vaccine.
8. Small pox vaccine.
9. Measles vaccine.

Care and storage of vaccines:- Vaccines may be

1. Live attenuated (weakened) organisms Eg: BCG, oral Polio, Small pox.
2. Dead organisms Eg: Typhoid, Cholera vaccine.
3. Toxoids, which are prepared toxins produced by organisms.
Eg: DPT, DT, TT.

Live vaccines must be stored at the correct temperature
Eg: BCG and small pox vaccines at 4-8°C .

OPV and measles vaccines at minus 20°C (kept Frozen)

Live vaccines must be protected from sunlight and from contact with antiseptics. The potency of the vaccine is preserved early if not refrigerated. Toxoids are to be stored at 4-8°C.

Typhoid and cholera vaccines also at 4-8°C.

EPI and The immunization schedule:

Expanded programme on immunization (EPI):

There are so many communicable diseases in India but in that only 7 diseases are selected in EPI, which was started in 1978. These are TB, Diphtheria, whooping cough, tetanus, polio myelitis, measles and typhoid fever.

These diseases caused a large number of deaths among children. The diseases can be prevented by vaccination to all infants, children and pregnant women.

Age	Vaccine
Pregnant	- 20 weeks. TT - 1st dose.
	- 28 weeks. TT - 2nd dose. (Booster)
	- 36 weeks TT - 3rd dose.

New born

Within 1 week.	BCG - 1 dose.
Infants from (6 weeks)	Hep-B, DPT 1st dose.
1 1/2 months	Polio 1st dose.
2 1/2 months	Hep-B, DPT and Polio 2nd dose.
3 1/2 months	Hep-B, DPT and Polio 3rd dose.
Infants 9-12 months	Measles - 1 dose.
	Vitamin A, solution 1 TSF.
Children 1 1/2 year	DPT Booster - 1 dose.
Children at school entry	DT booster - 1 dose.
Child at 10 year and 16 yrs.	TT 2 doses at an interval of 1 month and typhoid vaccine 2 doses at an interval of 1 week.

Now hepatitis vaccine is also included in immunization schedule and given along with 1, 2, 3 dose of DPT and Polio at 1 1/2, 2 1/2, 3 1/2 months to the child to prevent dreadful disease of hepatitis in children. Preservation and early treatment of common ailments is already discussed in the introduction to community health topics.

Health in the home:-

Housing is an important part of man's physical environment where he spends most part of his time. House is meant not merely the physical structure providing for shelter, but also include necessary facilities, services, equipment and devices needed for the physical and mental health and social well being of the individual and the family.

Functions of the house are :-

1. It satisfy physical needs, it facilitate for rest, recreation and exercise.
2. **Psychological needs:** It provides cleanliness and privacy for leading family life and helps for promotion of mental health.
3. **Health Needs:-** It consist of safe and adequate water supply, facilities for safe disposal of excreta and other wastes, facilities for washing bathing, facilities for storage, preparation and cooking of food and free from insects, rodents and vermin.
4. **Protective needs:** A house is asafe from accidents, fire, gas and other hazards.
5. **Standards of housing :-** The following standards of housing have been recommended by the environmental hygiene committee (1949) in India.
 1. **Site :-** House must be located in healthy locality. Avoid building on clay soil or damp soil. It should not subjected to flooding during rains. It should be away from dust, smoke, smell and noise.
 2. **Open Space:-** House should be in proper lighting and ventilation. There should be open place all around the house. In rural due to plenty of land the house should be build up not exceed 1/3 rd of total area and in urban area 2/3 rds.
 3. **Walls:-** Walls should be reasonably strong, and unsuitable for rats and vermin. A 9" brick wall plastered smooth will meet the above requirement.
 4. **Floor:-** It must have a hard surface Eg: cement or stone floor. So that it can be easily washed and kept clean and dry. It

should be free from dampness.

5. Roof:- The width of the roof should be not be less than 10 feet.

6. Rooms:- The number of living rooms should not be less than 2 or not less than 50 sq. feet per person.

7. Floor space:- It should be 50 sq. feet per person.

8. Doors and windows:- Doors and windows combine should have 2/5th of the floor area.

9. Facilities:- These should be separate kitchen, a latrine, a safe water supply and washing and bathing facilities.

10. Safety from fire and other accidents.

Rural Housing:-

Most people in villages are living in thatched huts which do not meet requirements of health. Huts are dark with low roof and without windows. The size is not enough for family and besides cattle, goat and hens are rearing and also no sanitary facility. Fire hazards are very easy.

Now huts are replaced by better houses. In rural area the standard expected of houses are:

1. At least two living rooms.
2. A separate kitchen and storage facilities.
3. A sanitary latrine.
4. Doors and windows.
5. Sanitary well or tubewell within 1/2 km.
6. Cattle shed to be at least 25 feet away.
7. Proper arrangements for disposal of refuse and waste water.

Due to poor Housing:-

The common Home Hazards:-

The adverse effects of poor housing on man's health are explained as follows:

1. Over crowding causes Spread of :-
 - a. Respiratory infections such as common cold, tuberculosis, diphtheria, bronchitis, influenza.
 - b. Skin Diseases: Scabies, ring worm, leprosy.

The Health worker needs to educate families on the risks of over crowding and inadequate ventilation.

2. Open fire and smoke in the home, cause the following hazards:
 - a. Children get burns and scalds.
 - b. Women cooking - sari may catch fire.
 - c. Fire hazards especially in thatched houses.
 - d. Smoke is harmful to eyes and respiratory tract.

The family should be encouraged to build a smokeless chula, advantages of which are:

- Smoke is gone out through chimney, so that irritation of the eyes, nose and throat can be reduced.
- Usage of fuel is decreased.
- The walls of the kitchen may not become black due to smoke.
- It is simple and cheap to construct and use.

3. Badly constructed houses have the following hazards:
 - a. They may collapse, causing severe injury or death.
 - b. Leaking roof and dampness cause ill health.
 - c. Cracks in walls and floor encourage insects and rats carrying disease.

House holders should be helped to improve the state of repair for the safety of their houses for better health and should construct better houses.

Ventilation and Lighting:-

Definition :- Ventilation may be defined as exchange of air between outdoors and indoors. By this the stagnated air in the house is replaced by a supply of fresh air from outside.

In a well ventilated room the air is:

1. Constantly circulating.
2. Of comfortable temperature.
3. 60% of moisture in the air.
4. Free from smoke and other impurities and unpleasant smells.

Poor ventilation has the following effects on the room occupants:

1. Yawning, fatigue, irritability, and lessened efficiency.
2. Feeling of heat sweating and may be fainting.
3. Poor appetite.
4. Insomnia (Sleeplessness)

5. Headaches.
6. Spread of infections such as colds, and lowered resistance to infections.
7. Irritation of eyes and air passages if smoke is present.

The recommended standards of ventilation on are:

1. Floor space of 50-100 sq. feet per person.
2. Air change in living rooms two or three changes per hour, in work rooms four to six changes.

Types of Ventilation: There are 2 types of ventilation.

1. Natural Ventilation.
2. Artificial or mechanical ventilation.

1. Natural Ventilation:-

In India this is most by means of doors and windows. This is brought about by means of certain forces are wind, diffusion, temperature.

Wind:- It brings about natural ventilation by its movement.

Diffusion:- or Spreading out, the gases is called diffusion.

Temperature:- Temperature between indoors and out doors is different. Then the movement of air from hotter region to colder region to become normal temperature.

Doors and windows facing each other provide, what is known as "Cross ventilation".

2. Artificial Ventilation:-

This is done by following way.

- a. Electric fans: Electric Fans are the simplest means. In a closed room electric fans alone will not ensure adequate ventilation.
2. Air conditioners:- The principle in that fresh air is drawn into the room by an electric fan or pump the air is filtered and moistened, and cooled or warmed as required. An airconditioned room must have spring doors which are kept shut, and no open windows.
3. In large halls: a bigger water cooler is implanted to proper fresh air to all parts and withdraws the impure air.

LIGHTING

Good lighting is essential for proper vision and health of eyes. The requirements of good lighting are :

- a. Sufficiency - The intensity of light must be sufficient.
- b. Distribution :- of light must be uniform.
- c. Absence of glare: Glare means excessive brightness. It hurts the eye & decrease critical vision. It is important cause of accidents.
- d. Absence of sharp shadows:- It should not present in the field of vision.
- e. Steadiness:- The source of light should be constant.
- f. Colour : The colour of light is not important as long as the intensity adequate.

Measurement of light: - The light should be measured in foot candles.

	Foot candles
Living room	7
Reading Room	6-10
Bed Room	4-6

Types of lighting are two.

1. Natural Lighting:-

It is derived mainly from the sky and partly by reflection. It depends upon the time of day, season, weather and clouds.

It is affected by the facing of building to north or south, size and shape of windows. the colour of walls and ceilings. It should always white.

2. Artificial lighting:- It may not depends upon day light during all hours. Not only during night time sometimes, we need artificial light during day time. It is from electric bulbs, tube lights etc.,

Tube lights are cool and efficient.'

Disposal of refuse:

Refuse means any kind of waste material. Solid refuse is applied to, refuse from houses, street sweepings, commercial and industrial and agricultural operations. Excreta means human urine and faeces. Improper disposal of these wastes are caused ill health in the community.

Types of Refuse and hazard: -

1. Dry refuse.

2. Wet refuse.

- 1. Dry refuse or solid refuse contains**
1. Garbage, kitchen, waste, left over food.
 2. Rubbish, waste paper, broken glass, bottles, and tins, bits of metal, plastic and rags.
 3. Ashes from burning wood. Charcoal and cow dung fuel.
 4. Animal dung,
 5. Street sweepings.
 6. Fallen leaves.
 7. Dead animals.

The various Hazards: -

- Breeding of flies and other insects and rats.
- Encouraging of dogs and cows.
- Growth of bacteria, and spread of infection by means of flies, dust and contamination of water supply.
- Unpleasant sights and smells.
- Danger of falls, Eg: Due to fruit skin on paths.
- Piles of refuse may be a fire hazard.

Wet Refuse or liquid waste: - (Sullage water) in a rural community consists of

1. Waste water from houses after washing clothes, utensils, vegetables, bathing etc.
2. Waste from public wells and washing places.
3. Waste water from cattle shed and market places.
4. Waste water from industries.

Hazards: - Liquid wastes from pools and cause.

1. Mosquito breeding.
2. Risk of polluting water supply.
3. Dampness of house and danger to foundation of building.
4. Bad smell.

Methods of Disposal of Dry refuse: -

Refuse should never be thrown on the ground nor swept into a corner. If it is not disposal property, it must be put into bin.

Any thing wet or must should be first wrapped in paper:

1. The refuse bin should have well - fitting lid to protect refuse from flies and others insects, crows, rats and dogs.
- b. Be made of plastic or metal which is easy to wash.
- c. Be emptied daily and disposed of by a safe method.

Methods

1. Burning:- This is the best method of refuse disposal

a. In cineration: By this method bacteria will be killed and refuse reduced to a small amount of ash. It should be carried away from houses to avoid smell and smoke, preferably in an incinerator. In this a cheif drawback is that the refuse is a loss to the community in terms of manure.

2. Feeding to animals:-

Left over food and vegetables waste may be fed to animals such as pigs. A seperate bin may be kept for this purpose.

3. Burrying:-

In a pit or trench, 3 ft deep, to prevent dogs or rats from getting at the refuse. Every time when refuse is dumped, it must be covered with some soil. When done in a large, this is called "Controlled tipping method. The refused may be broken down by bacteria into manure which may be used after 3-6 months. and the pits used again for fresh refuse.

4. Composting : In rural areas this is a very useful method. The compost pit is made as follows:

- a. Select a site near to the house but away from any water source.
- b. Dig a pit 3 metres x 3 metres x a metre deep, or a little larger if needed.
- c. The walls of the pit may be lined with bricks.
- d. Fill the pit with alternate layers of house refuse and cowdung in proportionf 3:1 and cover each layer with soil to avoid fly breeding.
- e. From time to time the compost may be turned and mixed with a long pole.
- f. The top layer should be of refuse covered with earth to about 30 cm. above ground lelel. When full, the compost pit is left forr 6 months, after which the contents can be used as manufreand the

pit used again

g. Two such pits will be needed for alternative use.

5. **Incineration** : Incineration is a form of burning which is the safest method of refuse disposal, especially for hospital refuse such as dirty dressings, but glass and tin should not be included.

Properly constructed incinerators are built and should be well maintained. The resulting ash may be used for road making or repair.

6. **Dumping on Land** This is a method which can be used to fill up low-lying land, but is not without health hazards. The dumping ground must be well away from houses because it will attract flies and rats, and have a bad smell.

To lessen flies, the refuse may be burned. The land may later be used for cultivation.

7. **Disposal of the Dead** Depending on custom and religious practice, the following methods are used:

a. **Burying.** Christians and Muslims prefer this method. Adequate fresh land is needed. Graves are dug 3-5 feet deep. The burial ground should be on sandy loam soil, not too close to houses. There should be a wall around, and trees planted.

b. **Cremation or burning.** Hindus and Buddhists usually cremate their dead on the open pyre. Less land is required for this method, but fuel is needed. The cremation ground should be well away from any houses.

The modern method of cremation by the use of a furnace is quicker and uses less space.

Excreta: The problem of diseases spread from faeces to mouth is very great in India. In rural areas it is common for people to pass motion on the ground and leave it uncovered.

Improper disposal of human excreta lead to the spread of disease in the following ways:

1. Flies can convey germs and worm ova from faeces to food.
2. Drinking water may be contaminated by infected faeces.
3. Food may be contaminated by inadequate hand-washing after defaecation.
4. Vegetables and fruits may be contaminated with worm ova in

soil or manure, and eaten raw without being washed or cooked.

5. Wet ground may be heavily infected with tetanus from the faeces of man or animals in soil.
6. Wounds or cracks in the skin may get infected with tetanus from the faeces of man or animals in soil.
7. Cattle or pigs may swallow tapeworm ova passed in human faeces, and later when the meat is eaten after insufficient cooking, a tapeworm begins to grow in a new host.

Thus in numerous ways, by improper disposal of excreta, the following diseases are spread:

1. Bacteria diseases : Cholera, typhoid and paratyphoid fevers, bacillary dysentery.
2. Parasitic diseases: amoebiasis, intestinal worms such as hookworm, roundworm and tapeworm.
3. Virus diseases : poliomyelitis, and infectious hepatitis.

METHODS OF DISPOSAL OF DRY REFUSE

Refuse should never be thrown on the ground nor swept into a corner. If it cannot be properly disposed of immediately, it must be put into a bin. Anything wet or moist should first be wrapped in paper.

The refuse bin should

- a. have a well fitting lid to protect refuse from flies and other insects, crows, rats and dogs.
- b. Be made of plastic or metal which is easy to wash.
- c. be emptied daily and disposed of by a safe method.

Methods of Refuse Disposal

1. Feeding to animals : Left over food and vegetables waste may be fed to animals such as pigs. A separate bin may be kept for this purpose.
2. Burning : By this method bacteria will be killed and refuse reduced to a small amount of ash. Burning should be carried out well away from houses to avoid smell and smoke, preferably in an incinerator.
3. Burying : In a pit or trench 3 feet deep, to prevent dogs or rats from getting at the refuse. Each time refuse is dumped it must

be covered with some soil. When done on a large scale this is called 'controlled tipping' method. Refuse is broken down by bacteria into manure which may be used at the end of 3-6 months, and the pits used again for fresh refuse.

METHODS OF DISPOSAL OF WET REFUSE AND EXCRETA

Disposal of Sullage water:

If waste water collects, it has to be drained away to a safe place. Wherever water is scarce, the sullage water should not be wasted but made use of in such a way that there is no health hazard.

Drains should be well planned for free flow of water, and checked frequently for any blockage. The water must not be allowed to flow into a clean source of water. It may flow into a kitchen garden or cultivated field, where it is used to help in growing food.

Papaya and banana trees are good for using up waste water and good food for the family.

If a kitchen garden is not possible, the drain should pass to a soakage pit.

Soakage pit: This is made as follows:

1. Select a place near the house where waste water runs out of the house.
2. Dig a pit 2 metres deep and 11/2 metres in diameter.
3. Fill the lowest 1/3 of the pit with stones and bricks of 3/4 size.
4. Fill the middle 1/3 of the pit with stones or bricks of 1/2 size.
5. Fill the upper 1/3 of the pit with stones or bricks of 1/4 size.
6. The waste water should flow into the soakage pit through a pipe. The pipe should be empty into a basket filled with straw and leaves which is placed in the middle of the upper part of the pit, and which serves as a filter. This basket should be removed and cleaned or replaced every 2-3 months.
7. Cover the top layer of the pit with a layer of earth to above ground level. Build a parapet 10 cm. high round the top of

the pit to protect it from rain water.

8. The soakage pit should not be used in the rainy season (block off the drain).

9. If the pit starts overflowing, it must be emptied, and the stones or bricks washed, dried and replaced.

Sullage from cattle sheds: Cattle shed floors should be washed daily and the waste drained away into a soakage pit.

Disposal of Excreta: In urban areas there is a water carriage system. Large pipes called sewers collect from house drains and carry away for treatment the excreta together with sullage water and rain water, called 'sewage'.

In rural areas, usually there is no public system of sewage disposal. Village people need to be shown a safe and practical method of excreta disposal.

It has been found that privately owned latrines are best, as they are most likely to be kept clean. Types of latrines are:

- a. Service type.
- b. Sanitary latrines.
- c. Simple latrines.

Service type Latrine : This type needs someone to collect and empty the buckets of nightsoil (excreta). It is not recommended except in case of sickness, when a commode or bedpan is needed.

Sanitary Latrine: This is one which does not cause nuisance due to sight or smell, the excreta is not left exposed, and it does not pollute the soil nor any water source. The best type of sanitary latrine is the water seal pit latrine. This should be situated conveniently near to the house, but 15 metres from any water source. There should be space for a second pit which is due when the first pit is full. This latrine consists of :

1. Squatting plate made of cement concrete 3 feet square and 2 inches thick, with raised foot plates.
2. Pan : This must have a smooth surface to prevent excreta sticking to the sides. It slopes from front to back.
3. Trap : This is a bent pipe 3" diameter, connected to the pan. It holds water and therefore acts as a water seal. The

water seal (a) prevents smell from the excreta in the pit, and (b) prevents flies.

4. **Connecting Pipe:** This is a 3" diameter pipe about 3 feet long. It connects to the trap and slopes down to the pit.

5. **Pit or Dug Well :** This is 1 metre square or 1 metre diameter and 2 1/2 metres deep. It must be provided with a strong cover below ground level, which is covered with earth. Inside the pit, the excret is made harmless by anarobic bacteria.

6. **Superstructure :** This is for privacy and can be made of any material according to the means of the family.

Maintenance of the Latrine If carefully used and maintained, the latrine can last a family of five for 3 to 4 years.

1. Each time it is used for defaecation, the latrine must be flushed with 1 litre water.
2. The squaring place should be washed frequently and kept dry and clean. Disinfectants should not be used as this would destroy the action of bacteria.
3. When the pit is full, the latrine cannot be flushed.. A fresh pits should be dug, connected to the latrine structure and covered with the old pit cover. The old pit should be filled up with easrth, left for atleast six months, then the contents can be dug up and used as manure.

Simple Latrine for a camp, especially where there is shortage of water, or for a family where a sanitary latrine cannot be constructed, this type of latrine is suitable.

1. Dig a pit about 1/2 metre wide and 1-2 metres deep. It can be of any length. It should be atleast 20 metres from buildings and water source.
2. Make a platform of wood or cement, with a hole in the centre, to place over the pit. Make a wooden cover with handle.
3. Erect screens of local materials to surround the latrine. The screen can be moved along the trench as it is filled up. The used end of the trench provides good soil for plants.
4. Each time after use, throw in a little lime, ashes or soil, to reduce smell and keep flies away.

The latrine should be kept clean by careful use and

washing down when necessary.

Bio-gas plant In India the use of biogas plant is being promoted. The plant is expensive to instal, but once installed is of great benefit to the family or community using it. The principle is that night soil passes from latrine to a large covered container where decomposition takes place. Animal waste such as cowdung is added and the resulting gas can be piped into the building for use with a gas cooking plate.

Sewage Purification Large quantities of sewage from a total community is offensive in smell and contains millions of bacteria. It has to be purified to protect the health of the community.

Two types of bacteria are involved in the purification of sewage:

The stages of sewage purification are as follows:

1. **Screening** : A metal screen strins out floating refuse such as bits of wood and rags. This refuse is disposed of by burying.
2. **Grit changer** : This is a long narrow trench where heavier solids such as sand and gravel will settle, to be removed later and used for roads or land fillings.
- 3.. **Primary Sedimentation Tank**: The sewage flows through slowly for 6-8 hours while other solids settle and form a black mud called 'sludge'. The sludge is pumped out into another tank, while the upper liquid part called 'effluent' passes on to be further purified. Sludge is dried to make manure.
4. **Biological Treatment** One of the following two types of treatment is used.
 - a. **Trickling filter**: This is a round bed of stones. A pipe with a row of holes rotates at the top of the filter. The effluent flows through the pipe on to the filter bed. As it passes through, it gets oxidised by aerobic bacteria and is purified.
 - b. **Activated Sludge Process** : The effluent is kept in a tank for about 6 hours together with a dose of activated sludge. This sludge contains plenty of aerobic bacteria. By pumping air into the bottom of the tank, the mixture is agitated and oxidised. Harmful organisms such as cholera and typhiod germs are

destroyed by this process.

5. Final Sedimentation: The purified effluent is kept in a tank for 21/2 hours. The sludge that collects is rich in aerobic bacteria and some is used for the activated sludge process.

6. Chlorination : Effluent from the Final sedimentation tank is chlorinated and is then safely allowed to flow into fields for irrigation or into rivers or streams.

Other methods of sewage disposal:

1. Oxidation pond : This is a cheap and suitable method for a small community. It is an open pool 3-5 feet deep with an inlet and an outlet.

The organic matter in sewage is oxidised, because of the presence of :

- a) Sunlight In India this is usually in plentiful supply.
- b) Bacteria which feed on the organic matter and produce carbon dioxide.
- c) Algae in the pond. Algae uses up carbon dioxide and produces oxygen with the help of sunlight.

2. Land Treatment of sewage: This method is used in some towns. After screening, grit removal and primary sedimentation, the effluent is used for cultivation certain food crops such as plantains and other fruits trees, and of some vegetables (not to be eaten raw).

3. Sea Outfall sewage gets diluted and gradually oxidised in the sea, but there is a chance of solid matter getting washed back. If this method is used, the sewage should be carried well out into deep water.

COMMUNITY EDUCATION AND JOINT PLANNING FOR REFUSE AND SEWAGE DISPOSAL:

The health worker in community should use every opportunity to educate people about the diseases spread by the following:

- 1. Dry refuse left on the ground or in a heap, or thrown into water drains.
- 2. Water collections near houses and wells.

3. Defaecating on the ground. Until they have built latrines, people should be taught to at least dig a hole for passing motion and to cover it with earth, as cats do.
4. Fly breeding and how flies go from excreta to food.
5. Spread of hookworm by walking barefoot on soil where faeces lie.

Next, plan and work together with the community to improve the environmental sanitation.

1. Discuss with the community leaders and show the community how to:
 - a. Keep streets and public places clean and free from refuse and flies.
 - b. Construct drains and dispose of sullage water in a safe manner.
2. Discuss with householders any plans they may have for disposal of refuse and excreta. Assists in choosing the site, obtaining materials, constructions and maintenance of units such as the following:
 - a. Compost pit, especially when cattle are kept.
 - b. Kitchen garden.
 - c. Sanitary latrine.
 - d. Soakage pit.
3. Use acceptors in the community to demonstrate to others the successful use of these methods.

SAFE WATER SUPPLY

Water is a basic human need. No-one can live without water. Water forms over half (57%) of the body weight, and without a supply of water a person will die within three days. A village or community cannot survive without water supply. Water is needed for:

- Drinking and cooking.
- Cleanliness - washing the body, clothes, house and utensils.
- Food growing and for animals
- Fire-fighting, industries, and for generating electricity.

Safe water supply is a basic health need. It is estimated that 50% of illness in India could be prevented by provision of safe and adequate supply of water.

SOURCES OF WATER IN THE COMMUNITY :

1. Rain - may be collected and stored. It is very soft water and more suitable for washing than for drinking purposes.

2. Surface water:

a) Lakes, tanks and reservoirs.:

Town and cities often depend on water stored in reservoirs. Water from the 'catchment area' around is collected and sent to the water works for treatment/

In rural areas rain water may be collected in a large tank by means of a bund. Lakes are natural collections of water.

This water is usually contaminated by humans and animals and is unsafe for drinking purposes.

b) Streams, rivers and canals.

Rivers collect water from streams on their way to the sea. Some rivers are important for water supply, but it is always polluted and must be treated in the water works.

Canals are artificial water ways, made mainly for transport.

3. Ground Water: -

Some rain sinks into the ground until it reaches an impervious layer such as rock or clay, where it forms sub soil water, or even deeper underground lakes and streams.

Ground water is safer than surface water and may require no treatment.

The supply is usually constant. Even in summer.

Disadvantages of ground water are:

1. The water is hard because it has absorbed salts from rock and soil. Hard water means that more soap is needed, and that boilers and water pipes get clogged up or eroded.
2. It usually requires pumping.

Sources of ground water are:

1. Springs - Where ground water finds its way to the surface.

2. Wells, which are of three kinds:

- a. Shallow wells : These contain sub soil water which may easily be polluted by sewage water .
- b. Deep wells : These collect water from below the first impervious layer (of rock or clay) They can supply safe water if proper precautions are taken.
- c. Tube wells: These are usually very deep. Water is tapped by boring a tube into the ground, and a pump is attached.



An unsafe Well

THE PROBLEMS OF IMPURE WATER:

A great deal of unnecessary disease and death in India is caused by contamination of drinking water .

Sources of contamination are:

1. People defaecate on the banks of rivers and tanks.
2. People bathe, wash clothes and vessels, animals in or near the water source.
3. Bird droppings and leaves fall into the water .
4. Well water is contaminated by underground seepage from latrines, soakage pits etc.
5. Dirty vessels are used to collect water .
6. Dirty containers are used to store water .
7. Containers are uncovered and drinking water is exposed to dust, flies, rats and birds.
8. Hands or unclean containers are put into the water to draw.

Diseases conveyed by water (water-borne diseases) are:-

1. Bacterial Cholera, typhoid, and para typhoid, fevers, bacillary dysentery and diarrhoeas.
2. Parasitic roundworms, guinea worms and amoebic dysentery.
3. Caused by virus is poliomyelitis, infectious hepatitis.

Safe Drinking water is :-

1. Free from pathogenic organisms. Water should be tested for presence of faecal bacteria.
2. Free from harmful chemicals such as nitrates, lead or arsenic.
3. Potable, or fit for use in the home. It should be clear and colourless and have no smell. It should be neutral or slightly alkaline but not acid in reaction.
4. Pleasant to taste, and acceptable regarding amount of salts in the water.
bicarbonates, chlorides and sulphates.

PROTECTION OF WATER SUPPLY AND PURIFICATION METHODS:

It is duty of Health workers to ensure that the water used by the community is safe for drinking. Duties of the MHW in rural areas include:

1. Surveying the water sources in the community - samples should be collected in sterilised bottles and sent for analysis.
2. Chlorinating public water supply sources.
3. Seeing that pumps are in working order, and reporting those that are out of order to concerned authorities.
4. Educating the people about the importance of drinking only safe drinking water.
5. Advising on proper methods of storing drinking water.
6. Advising on methods of purifying water.
7. Taking steps to protect the people in case of an epidemic caused by contaminated water supply.

Protection of wells : A safe well is one which:

1. Is on high ground and at least 15 metres away from any source of pollution such as latrines, refuse or soakage pit.
2. is a deep well or tube well, below the first impervious layer.
3. is lined with bricks and cement to a depth of at least 6 metres to prevent contamination by sub-soil water.
4. has a parapet wall of brick and cement of at least 70 cm from ground level, and a sloping cement platform with channel for carrying away the waste water (preferably to a vegetables garden or fruit trees).

5. has a cover, and no trees with overhanging branches nearby.
6. has a pump, or a special bucket with rope, kept free from contamination.
7. is never used for pot cleaning, clothes washing etc.
8. has a separate place nearby for washing clothes etc.
9. is cleaned out once a year, and disinfected regularly.

Chlorination

By adding sufficient bleaching powder to water, it is disinfected and made safe to drink. This is called chlorination.

Wells should be chlorinated weekly, and other water sources whenever there is an epidemic of water-borne diseases.

The principle of chlorination is to add sufficient bleaching powder to ensure that the water contains 0.5 parts of chlorine per million parts of water, after 30 minutes of contact. 0.1 mL of orthotoluidine reagent is added to 1 mL of the water in a test tube, and the yellow colour matched to find out the amount of chlorine. (O-T test)

To chlorinate a well you will need:

1. a bucket with rope or chain.
2. bleaching powder in an air tight container.
3. container for measuring.
4. particulars about diameter of the well, depth of water and chlorine content of the bleaching powder you have.
5. notebook for recording.

To calculate, for example in a well 4 feet diameter and water 10 feet deep, when chlorine content is 20 %, calculate as follows:

$4 \times 4 \times 10 \times 5$ (constant figure) = 800 gallons of water in well.

14 (cont.fig)

800 x = 50 gr. or 37 grams of bleaching powder.

20 (% of chlorine)
needed.

Next, fix the rope or chain to the bucket. Mix the calculated amount of bleaching powder in the bucket three - fourths full

of water. Then lower the bucket into the well and shake it about in the water. Take care not to disturb the bottom of the well.

Water Purification in the Home

If water is obtained from a doubtful source, it should be purified in one of the following ways:

1. By boiling : The water should be kept boiling for 5 minutes. All water given to babies and young children must be boiled to prevent risk of disease.

2. By chemical disinfection:

a). Iodine 2 drops of 2% tincture per litre of clear water. Allow 20-30 minutes before drinking.

b) Potassium permanganate enough to make the water a good pink colour. This is not so reliable as the Iodine treatment, but is useful in the case of a cholera epidemic.

c). Bleaching powder: Make a bottle of strong solution by adding 25 gm in 1 litre of water. Keep the bottle top tightly screwed down. Use in the strength of 1 ml. to 5 litres of water, and let it stand for half an hour before using.

3. Filtration

There are various types of domestic filters, but they do not remove the viruses of poliomyelitis and infectious hepatitis. Filters are expensive and require regular cleaning.

Safety in Storing and Drawing Water

1. The container must be clean and supplied with a suitable cover to prevent dust, flies and other insects, rats or birds from polluting the water.

2. Water should be poured out if the container is small enough. If not, the container should have a tap for drawing or dipper with long handle should be kept inside the container.

Water Purification for Towns:

The methods used are:

1. Storage and sedimentation.
2. Filtration.
3. Chlorination.

1. Storage : This takes place either in the reservoir, or in storage tanks at the water works. Chemicals may be added to aid in

the coagulating and settling of solid materials, which sink to the bottom of the tank.

2. Filtration:- Large cement tanks are prepared, with collecting pipes at the bottom. The tanks are filled up in layers with large stones, then small stones and gravel, then sand about two feet deep on the top. Inlet pipes let in the water which floods over the filter and passes through, becoming clean in the process. When filtration becomes too slow, another filter bed is used while the first is cleaned.

3. Chlorination: Chlorine gas, a powerful disinfectant, is injected into the water in measured doses. By this means any remaining bacteria are killed. Ammonia may be injected also, to remove the taste of chlorine and yet prolong its action.

Distribution of Water:

From the water works, the purified water is pumped into protected storage tanks underground, or straight to overhead water towers. From the tower the water flows in water mains made of iron with well-sealed joints, and branches from these mains, called service pipes, go to the houses.

If the water supply is constant and plentiful, water can be taken directly from the tap at any time. If however, the supply is intermittent, then storage tanks are needed in houses, and these must be kept very clean and free from contamination.

USE OF WATER IN PREVENTION AND TREATMENT OF ILLNESS:

In David Werner's book 'Where there is no Doctor', many suggestions are given for ways of healing without the use of medicine, but by the use of water. Refer to that book for full details. Here is a brief summary.

1. Drink Plenty of water.

To treat diarrhoea and dehydration

For fever.

For minor urinary infections.

For Constipation.

For cough, bronchitis, asthma, whooping cough.

In summer, to prevent heat stroke and heat exhaustion, drink plenty of water with salt added.

2. Breathe hot water vapour to ease cough (inhalation)
3. Sniff salt water for stuffed up nose.
4. Gargle with hot salt water for sore throat and tonsillitis.
5. Wash hands and boil drinking water to prevent diarrhoea, worms and gut infections.
6. Wash wounds well with soap and water to prevent infection including tetanus.
7. Bathe often to prevent skin infections. In summer bathe many times a day in cold water to avoid heat stroke.
8. Scrub with soap and water for pimples, sores, impetigo, ringworm..
9. Hot soak or hot compresses for infected wounds, abscesses, boils, piles or anal fissure. Hot compresses also for stiff, sore muscles and joints.
10. Soak hand or foot in cold water in the case of minor burns.
11. Soak body with cool water for very high fever or heat stroke.
12. Cold compresses to forehead for fever, and for irritation of the skin.
13. Flood eye with cool water at once in case of strong chemical or foreign body in the eye.

SUMMARY

- The Health worker should understand the importance of periodical health examination.
- She assist while doing physical examination.
- She should arranged the equipment ready for the Health examination.
- Immunizations are used to prevent the dread ful diseases like, TB, Diphtheria, pertussis, tetanus, measles, hepatitis, polio.
- Vaccines must be stored in very low degree of temperatures.
- The immunization schedule should be applied strictly to 0-1 year children will call protected child.
- A house is not only gives shelter but also provides health.
- The standards must be followed to construct home towards site, walls, windows, doors etc.

- There are various hazards due to improper housing eg. respiratory diseases, skin diseases etc.
- A house must have good lighting and ventilation.
- There are 2 types of water

Refuse and excreta. These should be disposed in different methods to prevent communicable diseases and maintain good health.

- The animal sheds, insect and pets are properly cared.
- The community is supplied by safe drinking water to maintain proper environmental sanitation. Every house has sanitary latrine.

QUESTIONS

1. Write the importance of periodical physical health examination?
2. How can you take care and storage of vaccines in a proper way?
3. Explain in detail about home hazards?
4. Write in detail about methods of disposal of refuse?
5. Write in detail about methods of disposal of excreta?
6. Write briefly about the purification of water?

UNIT VIII

MENTAL HYGIENE

Def:- Mental Hygiene is mental health care from birth to death in sickness and in health. The aim of mental hygiene is to ensure mental health at all stages of life and to prevent mal adjustment and mental illness.

Introduction:- Mental Health is a component of total health. It is concerned not only with early diagnosis and treatment of mental disorders but also with the preservation and promotion of good mental health and prevention of mental illness. Mental Health and physical health are interrelated. A sound mind in a sound body is an ancient saying. Health is defined by the WHO, includes both physical and mental health and social well being. This is the modern concept of optimum health which mental health is an important component.

Factors contributing to mentally healthy person:-

The foundations of mental health are laid in early childhood. The various factors which contribute to mental health may be stated as follows:

1. Good physical Health:- Good physical health is the basis of the mental health. Proper functioning of all the systems of the body i.e., respiratory, cardio-vascular, digestive, nervous and endocrine is essential. Individuals who suffer from deformities, disabilities and chronic incurable diseases fall into mental illness very easily. Good physical health is therefore the first stepping stone to mental health.

2. Basic needs:- The individuals cannot maintain proper mental health unless certain basic needs of are met. These needs are explained as follows:

a. Physical needs:- These are food, shelter, clothing, rest, recreation, sleep etc. which promote physical health. These are basic elementary needs of every person.

b. Psychological needs:- The need for independence, affection, achievement and recognition are among the important psychological needs which every individual craves for

c. Social needs:- These are needs for security, social status, praise etc. It cannot be possible to meet all the basic needs of given individuals. These are useful for the promotion of mental health.

3. Habits :- Certain habits contribute to good mental health. They are habits of work, study, play, rest and sleep. Control of ones emotions both in the home and outside the home learning to adjust to environment ; showing appreciaion for others and respecting the rights of others, cultivation of self confidence, setting reasonable goals for one self are some of the attitudes which one should habituated.

Characterstics of a mentally healthy person:-

In order to know the mentally abnormal person in the community, the Health worker should know the mentally healthy person characters. They are listed below

1. A mentally healthy person has good self control and not easily upset. Control of emotions like fear, anger, and love, expressing these in an acceptable manner and has learned to tolerate frustrations and disappointments.
2. He face problems and treis to solve then intelligently.
3. He adjusted to the environment well and able to get along well with others.
4. He feels to be satisfied with himself.
5. He does not pity himself.
6. He feels happy, calm and cheerful.
7. There are no conflicts and frustrations with in himself.
8. He accepted critisism and is not easily upset.
9. He understand emotional needs of others and tries to be considerable and courteous in his dealings with others.
10. He fuls secure in a group.
11. Able to think for one self, make ones own decisions, set reasonable goals, and face up to life's problems.
12. Appricate the others acheivements and wins.
13. Able to develop friend ships, and be senstive to their emotional needs and problems.

14. Have meaning and purpose ones own life and work, develop talents and use time well. Responsible and dependable in duties.

Mental health development or mental hygiene at different stages i.e. in infancy, early childhood late childhood, adolescence and adult hood and old are discussed in psychology chapters in III unit.

SUMMARY

- Mental health is a component of total health.
- There are various factors contributing to mentally healthy person.
- They are good physical health, basic needs and habits.
- In basic needs physical needs, psychological needs and social needs must be fulfilled.
- The mental hygiene undergoes various developments during infancy, early childhood, late childhood, adolescence and adult hood and old age.

QUESTIONS

1. What are factors influencing to mentally healthy person and explain in detail?
2. Explain about various characteristics of mentally healthy person?
3. Write briefly about mental health of a infant child?
4. Write about mental health development of a adolescent?
5. Write psychological needs of a old person?

UNIT - I PSYCHOLOGY

Psychology is the basis of good nursing because the nurse comes in contact with patients, relatives, visitors, and colleagues in her daily work. She come and contact with people of all ages in the community. A knowledge of Psychology is essential for a nurse to know her self and others to differentiate between the normal and abnormal and to help promote mental behavior and to help promote mental health in individual & families.

Psychology is defined as "The scientific study of behavior & experience".

Factors influencing Human Behavior

The main factors influencing human behavior are knowledge, beliefs, values, attitudes, skills, finance, and materials.

Time and the influence of family members, friends & coworkers, opinion leaders and even health workers themselves. Some of the other factors influencing human behavior are as follows:

- 1) Environmental stimuli: sight, smell, stimuli etc.
- 2) Needs: Behavior influenced by his needs, wants
- 3) Emotions Feelings: These arises from with in the body Eg: Anger, joy, hunger . Behavior is also dependent on our feelings and emotions
- 4) Motivation: With out Motivation behavioral changes commit take place. Motivation is an force which achieves an individual to a contain action.
- 5) Intellectual Perception: A persons intellectual Perception thinking and reasoning can influence his behavior in a given stimulation that is why each individual behavior in ways which make sense to him

Heredity and Environment:

Heredity seems to contribute to behavior development. Heredity always contribute to behavior with in context of particular Environment circumstances monozygotic twins are more similar to dizotic twins.

Environmental is also seems to contribute the behavioral development when identical twins that is same heredity and the same environmental reared together posses same Intelligent Quotient. The fraternal twins that is dissimilar heredity the same environment will shows the different twins dissimilar degree of Intelligent

Quotient.

Characteristics like short temper ness, musical and artistic skills are passed genetically passed. Then parents provide the Environment for development in the early years.

Any behavioral Characteristics is determined by genetic factors Eg ; Intelligence, perception, evaluation, reasoning etc other factors like blood group is totally determined by the genes.

Any amount of environmental modification cannot change such Characteristics. Some of the genetically determined Characteristics which are modified by Environment are phenylketonuria which leads to MR. The dietary and other treatment procedures the disease can be treated. The factors like intelligence, stress tolerance are not traceable to any genes but indirectly affected by heredity. These factors are highly modifiable by Environmental influences.

The modern science has advanced that inherited characters like facial features can be changed by plastic surgery. A person who is undergone such change would naturally develop positive self image and his behavior will be different. This illustrate that the deliberate influence of Environment and more recent research shows that neither is heredity inflexible nor in Environment, all that effective.

Basic Needs or drives or Urges: These are divided into 3 types

1) Biological Needs :Such as temperature, regulation, pain, sleep, hunger, thirst, sex drive and maternal drives, food water ,oxygen, sexual.

- (a) Temperature regulation: An individual is active in maintain a comfortable state of warm and cold. A man may pull on a blanket if he feels cold or wear a sweater. He may open windows and switches on the fan if he feels hot.
- (b) Pains: The individual tries to achieve comfort by avoiding all sorts of painful stimuli. According to that the sense organs are activated
- (c) Sleep: It is one more physolical drive for sleep is regulated by certain centers in the brain
- (d) Hunger: The motive of hunger gives rise to hunger, pangs. It coincides with stomach contractions and which depend upon blood chemistry. As the glucose level in blood raises the stomach contractions increases.
- (e) Thirst: When deprived of water for a long time become ex-

cessively restless and needs intake of water and dryness of mouth and throat. so intake of water is essential for the individual.

- (f) Sex -drive: This drive dominate during childhood with the onset of puberty the sex glands are functioning. As a result the sex drive is stimulated
- (g) Maternal drive: Prolactin a hormone from anterior pituitary gland plays an important role in motivating maternal behavior

2) Psychological Drives are curiosity and fear

- (a) Euriosity: It is close to drive exploration. Exploration is a drive that aids satisfaction of curiosity.
- (b) Fear: It is learned drive. It motivate the individual to escape from fear producing situation.

3) Social Drives:- Some of social needs are common to all human beings some others are limited. These are well expresses in all our competitive activity. Social drives result from the specific environment of a individual. Some important social archives are as follows

(a) Affiliation: Our need for affiliation is well expressed through our affiliation with associations, clubs and other institutions. Though marriage is partly a mean of satisfying sex drive also helps to satisfy many other needs including need for affilication.

(b) Social Approval: We often show an almost compulsive tendency to conform to norms set by our social group. This may be result of constant parental directions in childhood as to what is right and what is wrong for child to do.

© The Power Drive: Desire to be in a position of control to be boss to give orders to command, respect and obedience is called the power motive. The power drive directs the behavior of dictators, and leaders, and the financial empires

(d) Dependency Motive: It develops from our baby hood. Baby is completely dependent upon their parents they gave us food, drink, warmth, comfort and relief from pain.

(e) Achievement Drive: Its powerful Drive in some societies. We are taught the value of working hard to achieve several social goals. Success is highly prized. The importance is varies from culture to culture. It seems to be especially among the middle groups. It is a healthy tendency for progress.

Personality: Personality is a dynamic organization with in individual of those physiological system that determine his unique adjustments to his environment.

Personality is total pattern of characteristic ways of thinking, feeling and behaving that constitute the individual relating to this environment

Personality implied certain physical and mental traits, which are characteristic of a given individual. The individual's behavior on adjustment to his surroundings.

Personality and self-concept:

Personality means being a person, unique and different from every other person. Personality is related to

- 1 Goals and desires
- 2 Values, attitudes and interests.
- 3 Habits of thinking
- 4 Feelings and beliefs

As the infant grows and learns to distinguish between himself and other people and things and understand the concept or meaning of the word me or self-structure develops, it becomes the important meaning of personality. In this the individual experiences and coping patterns are organized. We may consider the self as the third and final determinant of personality.

A child at an early age begins to be aware of himself as a person. His personality develops by social interaction. Thus every person in some respects is like all other human beings, like some human beings and like no other human beings. Personality is not the experiences of life.

Some of the experiences may harm the personality. They are fears, doubts, guilt feelings that may have started in childhood makes us afraid to show our real selves. The act of role-plays 'games' and hide behind different masks in our relations with other.

Perhaps we can become free from our fears and negative attitudes and begin to grow into what we can become.

Thus each person evaluate himself and develop adopting system in his or her own right way of life and may consider the self as the third and final determinant of personality.

Self - awareness and acceptance:

In order to function well in the community the health worker needs to develop personally and be able to help others grow.

Here are some suggestions for personal growing:

- Be aware of your psychological position.
- Begin to analysis your transitions.
- Be aware of your responses to stress, to frustrations and if you are feeling not ok, what can you do?

Factors that influence personality:

1. Heredity: genetic factors influence growth and development especially height, weight, mental and social development and personality. From our parents we receive certain qualities like temperament and intelligence. Marriage of close relatives adds to this danger i.e. some mental disorders arise.
2. Environment: this is the most important factor influencing the personality.

a. **Physical environment:** This affects both body and mind of the growing child. A child must grow up in a decent home and locality for good mental health and out look on life criminals often come from a poor home.

b. **The social environment:** it means the people with whom we live, play and work that influence the personality in all aspects, knowledge and skill, habits, attitude and interests, values and goals. Most important of the social factors are the home, the school and the community.

Children from well to do families have better heights and weight and personality. This is because the economic factor is connected with the nutrition and level of living of the people.

3. Basic needs, drives or urges:

Every individual has some basic needs or wants which drive or urge the person to some activity or behavior.

There are priorities in these needs, and it is usually only when more basic needs are satisfied that a person will feel the urge to try to satisfy other needs. Basic needs in order of priority are as follows:

- a. Physiological needs: such as food, air and water, rest and sleep.
- b. Safety and security needs like shelter, home and fam-

ily, income and job security.

- c Love and belongings needs, such as family, good friends, belonging to one or more group.
 - d Recognition needs like appreciation and approval.
 - e Achievement needs, to have a sense of victory, such as fulfilling goals and ambitions.
- 4 Early learning: is conditional learning. At first the child sleeps most of the time when not feeding. Gradually when awake he begins to discover the world around him, through his senses of the mothers voice and her touch long before he can really see her. When she comes to pick him up he knows she is going to feed him. So he stops crying to anticipate what his mother will do. This is conditioned learning.
- 5 Value systems, attitudes and beliefs:

These are learned mainly in the family and in early social environment. They help to regulate behavior and help us to adjust in the social set up where we live.

A set of values or a value system, is required into the personality as the child develops. Values may be helpful in building characters, such as value for life i.e. not to do anyone harm and respect for the property of others. Other positive values a child may learn are, the value of education, of self-discipline, of family unity, and the value of sharing with others. A child whose parents have habits such as theft, lying, cruelty and revenge may acquire negative values.

Attitudes: are acquired characteristics of individual. They are more or less permanent ways of behavior. That is the way we usually react, or see and feel in certain situations.

For eg. Having an attitude of respect for our elder is a positive attitude. To feel hatred for the people of a certain community is a negative attitude. Attitude affects our behavior and is not easily changed. An attitude includes three components.

- a Knowledge
- b Feeling element
- c A tendency to action
- d Social interaction eg. Attitude toward persons, things, situations and issues.

It is said that attitudes are caught and not taught.

Once formed, attitude is difficult to change. They

affect our behavior. The attitude should be developed cultivated in children or young people by their parents, teachers religious leaders and older to develop a good character and harmony in society. In recent years the attitude surveys psychologists and health professionals.

Beliefs: the other hand they are permanent, stable, almost unchanging. It is thus carries to give up ones opinions. When faced with the facts, attitudes and beliefs do not change early. Beliefs may, however, be introduced to an individual from some source outside. The family believe in god helps a persons to have meaning and purpose in life and a sense of help and hope in times of troubles, sickness and death. An individual is a whole person i.e. fully healthy when he is in harmony with God, with himself and with others.

Body – mind relationship:

Body and mind are very closely linked. When a child feels that he is not attractive (too short, too tall, or skin is dark or realizes that he has some handicap, his personality is affected. He feels inferior, and will need help to accept himself and adjust in life.

A child who is weak because he doesn't get enough to eat will be mentally dull or retarded.

A person with mental worries, resentment or frustration is very likely to develop some sickness. It may be only a cold, or he may develop sickness. One of the psycho – somatic illnesses like peptic ulcer arthritis, HTN etc. emotions stimulate the new centers and causes bodily changes for eg. Facial expressions in crying and laughing. Emotions can also cause internal organic effects such as loss of appetite, nausea and vomiting.

Summary

- The word psychology is defined as a "scientific study of behavior and experience".
- The factors which influence human behavior are environmental stimuli, emotions and feelings, needs, motivation and intellectual perception.
- The heredity and environment are influence the behavior very much
- The basic needs are classified into three categories. They are Biological needs, psychological needs and social needs.
- Personality and self-concept is important from infants to

grow and learns to distinguish between himself and other people.

- Factors that influence personality is heredity, environment, basic needs, drives or urges, early learning, value systems, attitudes and beliefs.
- Body and mind are very closely linked.

QUESTION AND ANSWERS:

- 1 Define psychology.
- 2 Write in detail the factors, which influence human behavior?
- 3 Write short notes on
 - a Heredity environment
 - b Self concept
 - c Body and mind relation ship
- 4 What are the basic drives which influence behavior?
- 5 Explain the biological needs in detail?

UNIT -II**BEHAVIOURAL PATTERNS IN LIFE STAGES:**

In this unit we can discuss about the mental health aspects through various Life Stages

1) Infancy

Infancy or the period of a new born the word infancy means extreme helplessness this may be limited to the first few weeks of life that is gradually increasing independence.

First the infant is completely dependent on others for all of his needs. Physical needs are to feel wanted and love the health & happiness of mother plays an important role & effect on the development of fetus during pregnancy.

If the mother is happy during her antenatal period she may be free from fears & worries & the child become mentally health.

During the time of birth the child may be experienced a great anxiety, fear & tension. At the time of delivery the child mental health is very likely to suffer. Even though the childbirth is normal, after the birth the child has to make big adjustments. That means separation from mother causes anxiety in the child.

To help child to adjust the environment should be as clean as possible to that experienced during fetal life that is keeping child warm, comfortable, clean, well nourished & protected. In addition parents should try to avoid quarrels and keep the emotional atmosphere calm & happy.

The infant also needs to be constantly loved & recognized. Mother's love makes child to develop a foundation for his future healthy growth & development. If the child is not reared properly, child may grow up unable to receive love & to love other people. If the child cry is ignored & who is often left wet, cold & alone for long periods even if he is fed, will come to feel that the world is hostile or enemy & every one is against him.

The infant will begin to show independence & trying to have his own way during time of weaning when he is denied breast feeding, the child may be refuse food. If the artificial feeding is giving to child for his sucking satisfaction, child may develop thumb sucking.

Thumb sucking is a habit of child gradually grows out of especially if he feels lack of love & security.

Toilet training is usually not possible completely in first year. Due to the reflex action urine & motion are passed.

With weaning the motions are frequent if mother shows dislike of having to clean up the child, the child may feel & develop guilty feelings, if mother is anxious, when child fail to pass motion, child gets to realize power he has to influence his mothers reactions & may keep stool back by his own will. Too much stress on elimination may cause child to develop stubbornness of character and this may continue through out life.

So the health worker should encourage mother and guide her and not expecting too much of such a small child, but at the same time begin the training process.

The health worker should give health education to mother about importance of child's early life experiences & avoiding of emotional hurts. And also, the mother should know that if child develop a psychological scan, the infant might suffer life long adjustment problems.

2 Early Childhood It is a true foundation period of life because at this time many behavioral patterns, many attitudes, and many patterns of emotional expressions are being established. It is an age of decreasing dependency due to rapid development of body control.

These children find out their sex and tend to feel their genitals and find pleasure. This is normal at their stage and the child should not be scolded. The health worker should tell the parents to divert child's attention. This habit may be disappearing when the child starts school.

A girl of this stage shows intense love for her father, and needs affectionate response from him for proper personality growth.

Parents need to discipline children but punishment should be gentle. They should explain to child what he may do or not do, but never threaten nor make him afraid. At this age children usually have a strong love for parents but at the same time hate them for discipline. The child needs to know he is loved even while being punished. At this age child is very active and trying into every thing. He should be given space and materials for playing safely and always be supervised but not over protected. Little tasks the child can do may be given, together with engagement, to give him a sense of

achievement.

The child will imitate the attitude and behavior of a person when they admire and want to be like and it is important that they watch their own behavior. Religious educations should be given to the child in a way he can understand, using pictures, stories and parents own example.

The practice of above principles in home will ensure mental health of less than five children. However there will be homes where there are problems and the health worker should do all she can to help parents and children's in overcoming them.

Common behavioral problems at this stage include the following

1 Negativism and Temper tantrums

Physical resistance gradually given away to verbal resistance and pretending not to hear has understood requests. A child who is frustrated and discouraged, treated unfairly or who has too much of his own way, may react with stubborn disobedience, defense and temper tantrums. Parents need to be helped to understand the real needs of the child.

They should not over react to the child's behavior but realize that he has strong emotions and cannot control them. If he is understood and loved, he will gradually learn self control and obedience.

2 Sleep disturbances and Bed wetting

If the child feels insecure, fears and anxieties these disturbances may arise. So at that times the children may have night terrors and wake up screaming and full of fear. If this is a only occasional, parent may be reassured that it is not serious. They should avoid situations that the child doesn't water terrific seems in the TV nor see frightening pictures at bedtime. If the problem continues a doctor should be consulted.

Bed wetting- It is normal for sometime after the child is toilet trained in daytime. If child is in very deep sleep (may prevent the child from walking) though the bladder is full the child may not get up for urination. So far wetting bed, the parents should never scold the children. Before going to bed & in late night they may lift the child to empty the bladder. Later if the child did not do bed wetting the parent should appreciate. They may develop the child proud and self-confidence. If the enuresis continues to be a problem the parents should consult the doctor.

3 Fears and Anxieties

Some of experiences like thunder and lightening, a barking dog , getting lost or if he has some accident these situations makes the child very frightened . The child needs to be immediately reassured by presence of a parent or fears may continue and be a handicap in his future life.

When parents are inconsistent, reacting to a child behavior in different ways at different times, the child is confused and feels a lack of security. This result in tension or Anxiety State, which may be lasting, and lead to mental or physical illness later.

4 Aggressive and Destructiveness

Frustrations create such anger and hate in child that it may result in aggressive and even destructive or cruel behavior . At this time child needs more love and understanding and to be quickly forgiven. It is only gradually that young child learns to control his emotions and behavior. Being given opportunity for active exercise may help him.

A common accompaniment of temper out bursts in young children is destroying any thing with their reach whether they're own or some one else.

Aggressive behavior may be because off jealousy when a new baby has arrived. The child needs to be given some attention also and helped to enjoy being with baby.

Over - submissiveness :

f a young child is made to be ashamed and feel guilty for his behavior, he may try to hide his feelings and may get the habit of himself away . he may seem to be a godchild , submitting to the parents , but his suppressed emotions and habit of withdrawal are likely to cause emotional problems later in his life. Parents need to be warned not to punish a young child to the extent that his feelings are suppressed. The child's behavior improves more by praise then by punishment.

LATER CHILDHOOD :

Children of 6 to 12 years who go to school may for the first time experience real authority and discipline. The child enters a new world of ideas and experiences, and meets new people . On first going to school the child should be suitable encouraged and not have the feeling he is being sent because he is not wanted at home.

Children need to be told what to do . most of them want to do as they are told, but some time children enjoy being naughty. They feel secure when the teacher is firm and consis-

tent in controlling behavior .

A good teacher will respect each child as an individual . He will encourage their efforts and not expect too much of dull once. Children learn best by doing things. They should not be expected to sit still for long periods. they like to work or play in groups. Team games and group activities help children to keep to rule , to develop co-operation , team spirit , and leadership , also to experience failure and victory . deprived children need special care and encouragement, as they often have feelings of inferiority and in security . they should be helped to do well in some area of school life, and to have physical needs met, e.g. school meals, uniform and books .

Emotional conflicts may arise because of the dual authority , at home and at school. Parents- teacher associations are to be encouraged as these help to bring understanding and to solve problems for helping the children. Religious training need to be continued in the stage.

Stuttering , or stammering , is a common problem of the school child. There is difficulty in getting the work out when trying to speak. It is because of in security, often when a child starts school and has been over protected at home.

These children need more firm handling at home, and to be treated with kindness and sympathy at school. As they get adjusted to school life, children usually grow out of stuttering if not, they may be referred for speech therapy .

Reading difficulties

The ability to read is essential for normal mental development and for acquiring knowledge . children who have difficulty in reading needs special attention . the reason may be defect of the eyes or of the brain, and if either of these are suspected the child should be referred .

Learning problems

If a child is not making progress at school , teacher should try to find the reason. Is it because of hearing or sight defect? Is he being forced to attend the school with no motivation? Is there lack of security and affection at home? Is the learning problems in all subjects or only a certain subject?

The teacher should make every effect to see that the child is given help in needs so that he develops mentally and makes the best use of the learning opportunities.

Day dreaming (fantasy)

This is a way of escaping from the world around into a world of one's own imagination . young children often enjoyed their own world of making believe. If the day dreaming is only occasional , it is normal and there is no harm . if the habit develops so that the child day dreams instead of attending to studies and duties, the child needs to be helped to break the habit . he may need help in facing up to problems at home or at school.

If a child does not break the habit of day dreaming, it may lead to a type of mental illness called schizophrenia.

Adolescence

This is the period between childhood and adulthood , from 13 to 18 or even up to 20 years. It need not be a period of storm and stress , difficult for parents, teachers and the young people themselves . of certain principles are followed.

Principles of ensuing mental health in adolescence**1. Emotional satisfaction in earlier stages**

The difficult period of adolescence is passed through with far less problems when the basic emotional needs have been satisfied in earlier stages, especially in infancy and early childhood. The health worker should help parents of young children to realize the importance of the child's mental health and emotional development from birth onwards.

2. SEX EDUCATION :

Puberty and the physical changes in boys and in girls has been explained. Parents and teachers need to be understanding when adolescents are clumsy because of rapid physical growth, self-conscious about their appearance, confused and moody with maturing of sex organs, sex sensations and urges.

Sex education should begin early in the child's life, by parents giving reply to questions in a way. The child can understand sex education should be given in schools in a scientific way. In addition, the adolescents should have the chance of discussion in small groups, with a wise leader. They need to be reassured about what is natural and normal, eg. In regard to menstruation and seminal emissions.

3. Independence and protection

Parents should try to understand the moods of adolescents

– at one time wanting to be treated as adult and at another time wanting to still be a baby, wanting protection. Parents often find it difficult to loosen the hold on their sons, and more so perhaps, on their daughters, but it is necessary to let them have independence as they become ready for this.

Adolescents need the security of a home base and understanding parents, but they also want adventure and freedom.

4. Parents should never fail to love, trust and appreciate their teen age children. At this stage intelligence reaches maximum, and the adolescent tends to argue strongly on some point and irritate parents and teachers. Also the adolescent is trying to find truth and a set of values and ethics with may not be those of the parents. Conflicts arise. Parents need to have patience, they should disagree but with gentleness. They should allow the teenager to have his/her own opinion, and at the same time to feel assured of the parent's love and respect.

5. A rich social life , with opportunity to meet many types of people, will help the teenager his/her own place. He feels he has no status, being neither a child nor an adult. He joins a group or gang of his own sex and age. He wants to be like them in fashions, opinions and activities. The group the adolescent joins may help or hinder the development of character.

For healthy mental, social and spiritual development, the adolescent needs to meet, hear, and read about mature personalities whom he can admire and follow.

6. An outlet for energies, and self – expression is needed activities

Activities such as organized games, camps, and adventures, hobbies, and competitions of various types, should be encouraged. Sports and drama, whether taking part or watching help in release of emotions. The teenager may find expression and release through art or music, scouting or debates and discussions. These activities also give the teenager a chance to find out what he can do well , to develop talents, and to have a sense of achievement.

7. **Vocation guidance** is needed in schools, for guiding children into careers for which they are suited. When they are given no such guidance adolescents feel confused and fearful of the future. They see many young people, educated and uneducated, without jobs. They need guidance about the subjects they should study. They should

find purpose in their studies and a goal to work for.

Parents may want their child to carry on the traditional job of the family where as the teenager may have other plans. They should co- operate with the occasional guidance teacher and try to come to agreement with the teenager also, so that he will find satisfaction and enjoyment in work. Problems in the behavior of adolescents include depression truancy (absence from school), rebellion, aggressive and destructive ways, lying, and bad habits such as smoking, gambling, drug taking.

Causes of behavior problems include the following :

1. Lack of parental love and emotional security.
2. Broken homes, or quarrelling and fighting in the home.
3. Poverty and large family.
4. Neglect because both parents are working.
5. Discipline of parents or teachers is too strict or inconsistent.
6. Poor education program, lacking interest and challenging.
7. Backwardness in studies for various reasons.
8. Lack of hope of a job on leaving school.

Truancy :

When an adolescent feels he is 'no good' at school and is given no encouragement, he may give up trying. He gets to the stage of hating school (school phobia) and so stays away and may get into bad company, leading to delinquency.

Some times truancy is because parents have no interest in education of their children, and their encourage truancy, perhaps sending them for work instead.

It may be that the adolescent hates one particular subject, or has a strong dislike for one teacher, so finds a way to be absent from that class.

Rebellious behavior :

This is refusing to obey rules and those in authority. The adolescent insists on having his /her own way and does not adjust to situations, not co-operate with others. This results in frequent conflicts at home and at school

The reason for this type of behavior may be over – protection by parents, and lack of independence. Too strict discipline at home or at school may be the cause.

Aggression

The adolescent seems often to be the one to start quarrel or attack some one.

Aggression in the adolescent may be due to self – consciousness about his/her appearance e.g. a girl may be self – conscious about being too tall. Any feeling of inferiority or of being odd or foolish, may produce aggressive behavior.

Another reason is that aggressive parents tend to produce aggressive children. Aggression is often caused by social attitudes or to feelings of neglect, lack of status, and frustrations. Aggression is often against a certain person because of some hurtful word or action.

The adolescent needs to be helped to develop self-control and a more tolerant attitude.

Group delinquency

Adolescent boys often with nothing else to do join a street gang. The gang may have a leader who has failed in life and wants status. He is ready to do anything to make his mark, and may lead the others into delinquency.

The gang may be angry for some reason against a section of society, or it may be to meet their wants, or just for excitement, that they plot some misdeed. It may be harassing a passer – by, robbing some one, breaking into a building to steal, or setting fire to buildings or buses.

Prevention of behavior problems :

The health workers should work with families and the community to prevent behavior problems, e.g. by a helpful word of advice to parents, and by promoting healthy activities for the youth.

If the health worker discovers an adolescent with such behavior problems, she should report to her supervisor, who can investigate and work with the school and the family in trying to help the young person and overcome the problem.

Adulthood :

The young adult (aged 18 to 35) often has to take on new and heavy responsibilities connected with work and money,

children and home. If in previous life stages, this person had emotional needs satisfied, and learned to adjust to changes, then he/she will probably be a mentally healthy adult.

The mentally healthy adult's behavior shows that he/she is using intelligence and is not ruled by emotions as is a young child. He/she is able to enjoy life and cope in times of crises connected with work, marriage, birth of children, illness etc.

The young adult still needs security, not only financially but with good friends and happiness at home. There is need for job satisfaction and recognition. The young father should be able to take the main responsibility for the family. It will be helpful if bride has pre-marital training in her role as a wife and mother. It is good if the couple have some similar interests, and that they do things together and with friends. Adults are capable of wide social relationships. They should be encouraged to get involved in social service and removal of injustices.

Marriage is a union of two very different persons. There will be differences of opinion, likes and dislikes, habits and customs. One partner should not dominate the other, though the wise wife will submit to her husband's wishes as far as possible. They each need to learn to give and take, adjust with each other. It is a good rule to take together about any problem between them, the same day that it arises, and come to agreement before going to bed. By facing up to disagreements, a man and his wife draw closer together.

Conflicts between a couple which are not resolved, or suspicion of unfaithfulness, may cause the couple to stop speaking to each other. The marriage is in danger of breaking down, and the children will suffer.

Above all, to put into practice their religious beliefs will help them to have peace and happiness, and strength to cope with the disappointments and crises that may occur.

Marital problems :

Mother-in-law dominance may be a problem and lead to quarrels and unhappiness. The young parents may need help to get free from control by their parents.

The health worker as she visits homes, should do all she can to preserve the family unity. Couples who are unable to

solve their relationship problems may be referred to a marriage guidance clinic, or they may get help from priest or some mature person whom they respect.

In problems such as infertility, pain or difficulty with sexual intercourse the couple should be referred to a doctor or family planning clinic.

Failure in achievement :

The young man without a job, or who has a job which does not satisfy and suite his capabilities and interests, will be frustrated, insecure and unhappy. Some a young man may aim too high, beyond his ability, and so be disappointed. Another man may feel it is below his dignity to do a job with his hands, but he should realize that there is dignity in working with the hands, and that any job is better than no job.

The health workers should try to help by referring to some one who can give guidance or help with suitable employment.

The middle – aged adult is faced with situation such as marriage of children, children leaving home. Their may be sickness, chronic ill – health or death of the partner. The man has to face retirement, with all that this means in change of routine, loss of income and of social contacts. Middle aged people may fear the future, the prospect of loneliness, ill- health and other things.

The health worker can try to help these adults by suggesting they start some new hobby, and join in social and religious activities. These help the person to feel he/she can still be a worthy person in society and have some thing to live for.

Old age and dying :

The custom in India of keeping grand parents with a family is good. These old people are usually well cared for and live happily.

There problems may be because of loss of independence and status. They may become critical, blaming son or daughter for not caring for them. They may interfere in discipline of grand children.

The health worker may help as follows ;

1. Advise the family to allow the old person to have financial independence. If they have no pension and are in need of financial help, suggest applying for help from the state.
2. help the old person to adjust with the family, to appreciate their care , and allow them to bring up the children in their

own way.

- 3 Help them to find suitable ways of being occupied during the day, e.g. to join an old peoples club, a library, and get involved in religious activities.
- 4 if it is not possible for an old person to live with a family, the health worker may help to get him/her into a home for the aged. Such an institution should be a real home where the old people are given good physical care, and opportunity to be occupied in some worthy way.

Dying :

Fear of death is natural. We love life and have an instinct for self – preservation, to escape death and go on living. However, we need to face the fact that death comes, to us all sooner or later, and we do well to be prepared, and to help others, especially the aged to be prepared.

Death may be sudden, or a person may lie dying for some hours or days. If you as a health worker are with a dying person and sorrowing relatives, what should you do ?

There are the physical aspects – you need to know the progressive signs such as weak pulse, change in breathing and color, the skin cold and damp. The patient may lie still or be restless and struggling. A dying person may still be able to hear, so be careful of your conversation.

Besides giving physical comfort, you should be prepared to give spiritual comfort also, or invites some one who can do this. The fears of the patient, and sorrow of the relatives, may be relieved by your tender loving care, and more so if you can bring hope and the love of God into the situation.

Death is like the opening of a door to a new life. Christ has promised eternal life for those who believe in him. We read in the bible that nothing. Not even death. Can separate us from the love of god.

SUMMARY

–The mental development of an individual at different life stage they are infancy, early child hood, late childhood, adolescents, adults and old aged.

– In infancy the child needs more love and security. He is full of dependent on his mother.

–The weaning also starts at age of 4th month

■ If child feeling is not satisfied the child may develop thumb sucking.

■ – In early child hood child needs security love and close rela-

tionship with both mother and father, for mental health.

- If the child needs are not satisfied the problems like negativism, temper tantrums, sleep disturbances and bed wetting, fears and anxiety, aggressiveness may arise.
- Later childhood, the child needs security, love and encouragement both at home and school.
- Otherwise child may develop adjustment problems, like inferiority, stuttering, stammering, reading difficulties, daydreaming and learning difficulties.
- Adolescence is the period of storm and stress they need sex education, independence protection a rich social life and vocational guidance.
- Adult hood is connected with work, money, and children, home. The individual suffer with marital problems and failure in achievement.
- Old age fears of death are natural. Due to dying loneliness of partner may develop depression.
- We should give physical comfort and also spiritual confusion.

Question and Answers

- 1 Write about the needs of the infant child?
- 2 Write briefly the common behavioral problems arise during early childhood age?
- 3 Write the mental health development during late childhood.
- 4 List various problems arise during childhood.
- 5 What are the principles ensuring mental health in adolescence?
- 6 Write short notes on
 - (a) Marital problems of adulthood
 - (b) Failure in achievement
 - (c) Old age
 - (d) Dying

UNIT – III**Emotions and Defense Mechanisms**

Emotions It is a motivated state ranked by physiological arousal expansive behavior and mental experience.

Emotions are mental forces, which arise up suddenly inside us. An emotion is a strong feeling of joy, sorrow, love, anger, and fear, jealous. Whole organism emotions are motivate human behavior these are important components of human behavior. As emotional experience is characterized by both external & internal changes in human being. External changes are those, which can be observed easily seen by others such as changes in facial expressions & changes in posture. By observing or studying facial expressions we can find out persons is angry, happy, depressed, or elevated.

The internal changes brought about by emotions are physical such as sweat glands active rapid pulse, respiration, mouth become dry, TBP, pulse rate, tension, and pain. Usually these changes are to arises suddenly as a reaction to some situations & then direly slowly or remains as a mood.

We can perceive an emotion as follows

- 1) We can perceive an emotion as follows
- 2) The body get stirred up
- 3) According to emotion we can feel which is pleasant or unpleasant
- 4) Emotions are expressed, such as by crying, laughing, shouting, hitting.

Importance of Emotions

– Emotions are important & have a great value in life. Emotions can be a major barrier to communication. With out them life would be very dull. Music, drama, art would be worth nothing with out driving force of Emotions.

Emotions give you energy for some important activity, Eg; Seeing a child whose has become blind with VIT A. A deficiency will cause you to check on administration on Vitamin A. concentrate to all the children.

In H E we can arise emotions in people to being about a change in their health habit, EG; telling a story about a child who

died of cholera after eating sweets covered with flies. On other hand too much of Emotions can have a bad effect on behavior & on physical health of people.

Expression & Control of Emotions

Behavior that expresses Emotions includes vocal qualities, body movements & facial expressions.

(1) Vocal qualities

When we speak our voice as well as our words convey emotions we can use the same words to express different emotions by simply altering the vocal qualities (i.e.) rate, pitch & loudness of our speech EG; when we are happy our voice will show an increase in pitch.

(2) Body movements

If we observed the gestures of important drivers in heavy traffic on a hot summer day, we know that body movements may convey emotions. Even movements of whole body may do so. The body movements of dancers, players & others are especially appealing because their movements convey emotions.

(3) Facial Expressions

It is evolved to communicate emotions & help individual distinguished friend from enemy. An individual can measure quickly an angry face than a happy face in a crowd.

Darwin says Facial Expressions are unborn, evolutionary, adaptations comes that young infants produce Facial Expressions for basic emotions of joy, fear, anger, disgust, sadness & surprise. A small child is unable to control emotions. We see Facial Expressions of anger in temper tantrums & Expressions of joy in jumping up & down & squealing children should be shown love appreciation to grow emotional maturity trained by good parents and teachers. A child gradually learns to keep emotions under control. A mature person is aware of his other own emotions, but doesn't give into them. It isn't necessary to always act on them. A well-adjusted & mentally healthy person is one who is able to keep his emotions under his control. For adult happy family life is basic for emotion adjustment. To control emotion following tips are worked

- (1) Cultivate hobbies, good habits of reading & recreation
- (2) Avoid mental conflicts
- (3) Try to understand your own limitations
- (4) Develop a sense of humor

A study of physical helps us to understand basics of emotion the need to keep emotion under control

Negative and Positive emotions

Negative emotions Negative emotions are those that give us an unpleasant feeling positive emotions are give pleasant feeling to the individual.

(a) Anger

Its Negative emotions most often caused by some kind of frustrations. It is a reaction of offensive type. It is a destructive force. If it is not controlled it may impulse a person even to communicate murder or there is a quarrel, which may result in violence.

For peace & harmony in relation with others we need to use self-control & find acceptable ways of solving inter personal problems.

The emotion of anger is accepted by society when it is raised & expressed against normal wrongs. If you see a child being cruelly treated it would be natural & socially accepted for you to be raised & to express your anger. Besides the feelings & changes in body already mentioned your face will flush with anger & eyes flash. Unless you can control yourself you may strike in your part would be going too far & you may find you self in trouble.

Some times feeling of anger remains after it has been expressed in a mood of resentment or of self-pity. The face expressions mood. Any one aware of this behavior habit needs to face it & over come it with more positive attitudes & pleasant feelings in order to help in developing a good personality.

(b) Fear

Its common Negative emotions of a can help harm. When there is a danger, such as a building about to fall on us, fear is a raised. It may produce excitement or depression, fright. Our face become pale, eyes wide open. Internal changes prepare us to run & get out of building fast so from this we can see how to emotion of fear can help to protect us from harm.

Some of common fears of man are fear of dark, fear of dogs, fears of snakes, fears of ghosts, fears of sickness, fears of death etc. when the fear becomes exaggerated or unnecessary its

called phobia. Such fears are common in people with mental disorders.

On the other hand if we are to be able to give first to injured people it is necessary to control our own fear

A healthy fear is fear of God & of people of authority a feeling of self worth and knowing your basic rights as an individual should balance this. The emotion of fear is regard to authority should be well under control in a mature person. In many of life's situations we need to use intelligence & good judgment in place of fear.

(c) Sorrow

It is an unpleasant emotion. This feeling shows in face, the eyes & mouth turn down at corners. A tremor or a break comes in voice & very often tears will flow when the reason for sorrows is void such as a hearing of the death of someone you know it is good to let tears flow for a while release the emotion. To control the tears in this case may lead to personality problems.

The emotion of sorrow may rise for yourself EG when scolded or punished for some error you should learn to control yourself accept your fault, ask excuse, & resolve to do better never give away to self pity.

(d) Anxiety

In this a rapid pulse & breathing, flushing, sweating, dry mouth, nausea, diarrhea, raised B.P etc. Patients admitted to hospitals are anxious. Anxiety leads to tension to pain the doctor must understand the patient's anxiety & give him reassurance.

(d) Jealousy

It is a negative emotion, which may be a problem of yours if person is Jealousy

He may not be happy with himself & feels dissatisfied with life & resents success & happiness in others. You are Jealousy of a classmate who has better clothes or who gets a higher mark in tests than you such feelings need to be controlled because strong feeling or emotion of Jealousy should be raised in you It may result in you doing some harm to other person without a good reason

A Jealousy person gradually loses self respect her own personality is poisoned by his emotions. Be aware of where it will lead

you * change your attitude before such feelings become a habit.

Positive Emotions

These are emotions that give us a pleasant feeling. These emotions are expressed freely in a happy young child. We adults also, whatever our age, need occasionally to act and feel as we did in childhood- to be free to laugh, play and have fun, to love and to show tenderness and affection.

Joy

The emotion of joy is aroused when you receive good news, such as a pass in the examination. Your face lights up with an expression of pleasure. Your voice reveals excitement, and for a while you may laugh happily, and perhaps hug your classmates. However, if one or more of your classmates have failed, you will need to control your emotion of joy, and express sympathy.

As a child delights in simple pleasure such as a plucked flower, we all need to be aware of things in nature or created art or in our religion, which can arouse within us joy. There is so much sorrow in the world – let us express joy and share it with others.

Love: It is a feeling of attachment to some person. It is a basic emotion of man.

Love is more important than anything else in the world. Infants will not grow and may even die if love is not given to them. Everyone needs to love and be loved.

The emotion of love brings with it a feeling of affection. For good mental health of individuals and families, love needs to be kept alive by thoughtful acts of kindness, by understanding and trust. Selfishness, jealousy and suspicion can spoil the love between people.

Love of the highest kind is sacrificial, a giving of oneself without expecting reward. We see this in the work of Mother Theresa of Calcutta, who is filled with the love of God and expresses it in tender care of destitute and dying people.

The best health workers will be those who can offer this kind of loving, caring service to the community.

- 1 **Emotion and health:** Emotional status determines human behavior. Anger can cause a person to be rude and sarcastic. Disorders of emotion interfere with human efficiency. Lack of concentration, lack of appetite, increased risk of accidents, lack of sleep, palpitation etc. emotional disorders in children

appear in the form of temper tantrums, abdominal pain, spasms, tics and antisocial behavior such as aggressiveness.

- 2 These are a group diseases called as psychological diseases that is mind acting on body e.g. essential HTN, peptic ulcer, asthma, ulcerative colitis which are attributed to disturbed emotional status.

Frustrations and Conflicts

Frustration is a condition of tension, because of something that stops us from satisfying our needs or desires.

Causes of frustration include the following

- 1 Annoying things in daily life, such as electricity failure when we are reading or writing at night.
- 2 When plans cannot be carried out because of heavy rain, or being let down by someone.
- 3 When our income is not enough to meet our needs.
- 4 When family or social customs prevent us from doing something we had set our heart on doing.
- 5 When physical weakness or handicap hinders a person's desire and ambitions.

Frustrations are a necessary part of growing up. They should not be in excess and we should gradually learn to tolerate them, with the help of feelings of security and personal worth.

Frustration tolerance means being able to meet frustrating situation without being too upset. Continual frustrations of basic needs may lead to adjustment problems and mental illness.

Conflicts are related to frustration. Types of conflicts are:

- 1 Conflict with another person or group. The reason may be different ideals, attitudes, loyalties or standards of conduct, or it may be a clash of temperament.
- 2 Conflict with the environment, as when disaster such as fire affects someone personally.

- 3 Conflict inside a person. For example you have a question you would like to ask the tutor, but are afraid of being thought foolish and ignorant. Or it may be you hate to do some assignment but you are afraid of being punished if you fail to do it. Or you would like to go to see picture but you know your parents would not approve.

Conflicts may be conscious or unconscious. There are times when we are not aware of the real motives causing the conflict, but we feel some anxiety.

Conflicts cause tension, and should be ended as soon as possible, for which the help of a mature person may be needed. If conflicts continue, they are repressed or pushed down into the unconscious part of the mind, when they remain active.

Internal conflict is dangerous. It can cause emotional disorder and mental illness.

Defense mechanism and behavior:

Defense mechanism is different ways in which people may adjust to emotional conflicts and frustrations. The person using the defense mechanism may not be aware of them as they usually come from the unconscious part of the mind. We like to think we are in complete control of our behavior, but this is not so.

Defense mechanism are affected by experience and feelings of long ago in our childhood, and forgotten.

Purpose of defense mechanism:

When germs attack our bodies, there are several lines of defense to fight the germs and protect us from infection.

In a similar way, defense mechanism are deices of the mind for protecting us against frustration or stress situation we feel unable to cope with.

The main purpose, then, of defense mechanism is to protect our ego. Other purposes are to relive tension, to overcome feelings of failure, and to maintain inner harmony.

Common defense mechanism:

The stresses and strain caused by frustration and conflicts are uncomfortable, even painful. The following are common defense mechanisms used whether consciously or un-

consciously to get relief.

1 Compensation

When in spite of all efforts, a person fails in something and the ego is threatened, the person may look for some other area in which to succeed. If a health worker student feels frustrated by her tutor but cannot say anything, she may compensate by an out burst among classmates.

2. Negativism

A person, who has been used to having his/her own way, may react to frustration by defiance, doing the opposite of what is expected. By resisting other suggestion the person keeps up his own ego.

3. Sympathism

Instead of facing a problem, we may turn to others for sympathy. A health worker student who is not doing well in studies, instead of seeking the cause and trying harder, may get sympathy by telling of various personal difficulties or by suggesting she is just unlucky.

4. Projection

We all tend to blame others or circumstances instead of admitting our own failure. It is common for people to criticize others and not see those same faults in themselves.

5. Identification

If you cannot achieve some goal, you may identify yourself with those who have achieved it. This may help at the time, but if this defense mechanism becomes a habit, you may be continued to feel satisfied with achievement of the group, and make no effort on your own.

6 Sublimation

Great works of art, music, or science are often due to sublimation because of frustrated love.

An unmarried woman can sublimate her material urge by finding some job of working with children.

If you should feel angry and want to attack someone, but you know this would be wrong, it is good if you can play some vigorous game to work off the tension.

7. Rationalization is a popular mechanism. We excuse our failings by giving several other

reasons, which seem to justify our action. We hide the real and true reasons. We may not realize that we are twisting truth and deceiving ourselves. If we use this mechanism often, we may lose all sense of what is true.

- 8 Regression is returning to a childish level of behavior instead of facing up to problems. A student who is not making progress may cry or sulk, or plead that she has a headache, when told to do an assignment.

9 Withdrawal

Failure and criticism cause some people to become timid and withdrawn. They fear failure so much that they refuse to face problems and bear responsibilities.

10. Repression

This is an unconscious way of forgetting. Emotions, which do not fit in with social values and norms, such as hatred for parents, are dealt with by our ego forcing them down in to the unconscious mind. Many unpleasant experiences of early childhood are repressed. We are not aware of these, but repressed emotions may come to the surface in the form of anti-social behavior.

ADJUSTMENT :

By means of defense mechanism, we are able to make adjustment to stresses and strains and keep mentally healthy. Many of our adjustments make use of several of these mechanisms at one time. We are usually not aware of how our ego is making adjustment, as these go on in our unconscious minds. We only realize that we feel more comfortable with ourselves as a result.

When there is steady development from infancy, adjustments are made in a simple way and the ego does not need to depend much on defense mechanisms.

On the other hand, a maladjusted person uses them a great deal and may develop mental illness in which such defense mechanisms are constantly being used.

Stress, illness and behavior:

Stress includes anything, which produces alarm reactions in our bodies, to give energy for fight or flight. Adrenaline is released and in small doses this is helpful. It gives energy for activities, also helps to train us in facing frustration and in solving problems. Stress in too large a dose, or in continuous small doses is harmful and results in physical and mental illness.

Stress comes to everyone, but affects people in different ways. Our mental and physical health depends on how we react to the stress. In a busy life we need to take time off for relaxation, and time to be alone, to pray and meditate, so as to be renewed with strength and power to overcome, to react in a positive way to the stresses and strains of life.

Illness is very often caused or made worse by stress. Illness upsets a person in every way. Besides changes in the body, illness affects mind and emotions, producing changes in behavior.

Behavior in illness varies a great deal, according to the patient's personality and previous experience of illness.

1 The complaining patient

Illness causes a person to feel inadequate and that he has lost his self-esteem. He may react by finding fault, blaming others, resenting hospital restrictions. He may lose his usual emotional control and be very difficult. You will need to have much patience with this type of patient.

2 The dependent, childish patient

Some patients react to illness with dependence like a child, demanding a lot of attention and sympathy. Without getting irritated, the health worker will need to combine patience, tact and firmness in dealing with this type of patient. Avoid creating him/her as a child. By maintaining an attitude of respect for the patient as a person, the patient may be gradually helped to give up the childish behavior and move on to independence as he/she recovers from the illness.

3 The silent patient

Another patient may react to illness by being withdrawn and silent, asking no questions and making no demands. Inside, the patient may be full of fears and worries. There may be a sense of guilt. The health worker needs to show affection, sympathy, kindness and interest, which will help to give confidence to the patient to respond and get release by talking about his feelings.

RECOVERY

Stress may also prevent a patient from recovering. The health worker should provide a restful environment and try to help the patient to understand and resolve both health and emotional problems, and start life afresh.

Summary

- Emotions are mental forces, which rise up suddenly inside us.
- An emotion is a strong feeling of the individual.
- Emotions can cause internal and external changes to the individual.
- The emotions are important and have great value in life.
- Emotions are major barriers of communication.
- Vocal qualities, body movements and facial expressions can express emotions.
- A well-adjusted and mentally healthy person is one who is able to keep his emotions under his control.
- For adult happy family life is basic for emotional adjustment.
- There are positive and negative emotions.
- Positive emotions are love and joy.
- Negative emotions are fear, anger, anxiety, jealousy and sorrow.
- Due to long effect of emotions can cause bodily diseases such as essential hypertension, peptic ulcer and asthma.
- Frustration and conflicts cause stress and tension.
- Stress causes illness to the individual and the individual shows or exhibits some signs of behavior.
- Stress and illness may cope up by means of self defense mechanism, which protects us from diseases.
- Ego defense mechanism is to protect our ego and relieve the tension and overcome the failure feelings and maintain inner harmony.

Questions

1. Define the meaning of emotion?
2. What is the importance of emotions?
3. How the individual can express the emotions and it can be controlled?
4. List out positive and negative emotions? Explain in detail about negative emotions?
5. Explain in detail about self defense mechanism and behavior?

UNIT – IV**GROUPS TEAMS AND LEADERSHIP**

Duties of the health worker include working individual, families and various groups in the community, and working with others in the health team. For this work she needs the following skills.

- 1 Inter-personal skills
- 2 Team work, and leadership.
- 3 Obtaining information.
- 4 Motivating the community for change.
- 5 Group dynamics.
- 6 Promoting leadership.

Inter personal skills :

When you have started understanding yourself (self- awareness) and when you feel ok, comfortable with your self, accepting your self, then you are ready to develop good relations with others. This is most important for the health worker who needs to work with people, each of them a person with thoughts, feelings and potential to grow.

(1)Appreciation

This is a basic need, a hunger of every person. When someone makes a remark to you of appreciation or praise, such as "You spoke so well at the meeting", how could you feel ! when you stroke a pet cat it will purr with pleasure. In psychology we use the word 'stroking' to mean taking notice of another person. You should practice giving strokes to other people and see the effect on them. Don't flatter and overdo it however. Be sincere when you praise.

(2) Recognition

This is another hunger. Speaking to a person, looking into his/her face, and listening to what is said all help a person to feel important, a person of worth.

(3) Approval

You can 'stroke' a person by your facial or other expression showing your approval. When behavior is approved, a person gains more confidence. He /she is encouraged to develop talents, or is motivated to greater effort. When you disapprove, you need to be aware that what you say or do may bring harm to that persons ego if it is not done with care. Before you criticize, always give a positive stroke

(4) Receiving Negative strokes

To be ignored, ridiculed or criticized, is usually painful. Emotions of anger or shame may arise in you. What should you do ?

When you receive a negative stroke, be aware of how you feel, but take control of yourself. If you know the person well, you may express your feelings of hurt without emotion and without blaming the other persons. The person then might say 'I'm sorry', and you both grow as persons and in relating to one another. If there is no good response from the other person, you could keep quiet and later find outlet for your feelings by some vigorous exercise, or by praying about it.

(5) Acceptance

Just as we have seen the importance of self acceptance . we need to accept other also as individuals in this world for a purpose . Acceptance means that we do not judge their behavior or appearance . we have no prejudice on account of caste , class , or where they come from. Acceptance means we allow other people to be themselves, and respect each as an individual with right and freedom

(6) Under standing

For good understanding , we need to get to know people . We need to be interested in them and sensitive to their attitudes , values , aspirations and needs . We should observe and listen carefully, then respond in a helpful way.

Teamwork and leadership

A team is a group with a certain task, which requires that members of the group help, support and understand each other. A team can be permanent e.g. the health team, in which the health worker function as a member, or it may be a temporary group set up for a special purpose or project.

For good teamwork the members need to:

- 1) Feel they each belong to team spirit.
- 2) Grow in understanding of each other, and knowledge of each person's role.
- 3) Be able to contribute to the achieving of common goals.
- 4) Participate freely and openly in face - to - face discussion.
- 5) Co - operate and co - ordinate activities.
- 6) Accept one another, support one another, and trust one another.

The basic tasks of a team are to:

- 1) Decide on policy, set goals, and plan.
- 2) Solve problems.
- 3) Evaluate progress and goal achievements.
- 4) Resolve conflicts among themselves. Conflicts of ideas and views can be used for better results if all have the will to work together. The health worker should be able to manage, or lead a team such as the VHGs, Dais, Depot holders and other volunteers in a village or group of villages.

The leader of a team should try to:

- 1) Make sure the goals are clear to everyone.
- 2) Make sure that each one knows what others are doing.
- 3) Find out the talents of members.
- 4) Promote a good team spirit. Avoid domination by one person. The leader should set an example in listening and working together step by step. Everyone should contribute.
- 5) Be sensitive to tension, and encourage members to share feelings and to accept one another even if opinions differ.
- 6) Be sensitive to time, and see that useful work is done.
- 7) Be prepared to accept mistakes, learn from them, and try again.
- 8) Be flexible, prepared to make changes, but keeping the goals in mind.

OBTAINING INFORMATION

The health worker works with the community with the goal of promoting health and wholeness. She needs to be well informed, and aware of various ways of obtaining information. Here are some guides – lines:

1. Take note of instruction from your authorities.
2. Keep up to date with trends and new discoveries.
3. Add to your knowledge and experience by meeting and mixing with people, by attending conferences, seminars and workshops, by listening to radio etc.
4. Get to know your community. Student health workers may discover a great deal about the community by making weekly visits to 8 or 10 families in different locations and getting to know these families. Observe, listen and try to find out the following:
 1. What groups and social activities are there? Who are leaders? Who has power, and why?

2. Attitudes of people towards other groups. How far do different groups understand each other / Are they prepared to work together for the benefit of the whole community?
3. Resources of the community; land (whose is it?) and food sources, animals and poultry, water supply, buildings, schools, roads, and transport, people with skills, health care resources, work opportunities, and earnings in relation to cost of living. What rate of interest to poor people have to give for loans?
4. Family nutrition and health, beliefs, customs and habits related to health and family welfare.
5. What do people feel are their priority needs?

MOTIVATING THE COMMUNITY FOR CHANGE

The health worker will find that differences of caste, education customs, values and attitudes cause conflicts so that people will not work together easily. The main causes of conflict may be identified as follows:

1) Power, control and Attitudes of the Rich

The rich own the land, decide how much (or how little) wages will be paid, control the water supply (often denying use of wells by Harijans). They may not realize how the poor are suffering, why they get more and more into debt and into a worse state of poverty and poor health.

The motives of the rich are usually related to looking after their own interests, and so it is best to keep things as they are and not to bring changes.

A few of the rich do care about the poor. They are fair, generous and sympathetic. The health worker should stimulate such persons to find out causes of poverty and poor health, and raise questions to motivate others too in this interest and concern.

Rich people too, should be made aware that for better health and well being of the whole community, the poor need to be well represented in committees and encouragement to participate fully.

They should realize the right to dignity and self-respect of poor people, and that they need encouragement to find the way to freedom and self-reliance. Then their children will become well-adjusted and useful members of the society.

2) *The Condition and Attitudes of the Poor*

Poor people are used to hunger, sickness, and deaths in their families. They struggle to survive, and become more and more dependent on aid such as free food supplies. The women work hard in the fields for much less than men receive. For months there may be no work. Loans are taken at a high rate of interest, which they can never repay, so they lose their property.

The poor usually have a low self-image. Their attitude may be one of apathy or despair. They have no hope that things will improve for them. Some may become angry and join a political party, or become delinquent.

Role of the Health Worker

The health worker must try by all means, to motivate individuals (especially community leaders), families and groups, to change unhelpful attitudes and habits, also to work together for the health and well-being of all. The basic need is to work towards social equality, and unity.

The health workers main goal should be to enable people to self-reliant and have control over their health and their lives.

Motivation may be by means of -

1. Good communications, using all different methods
2. Example, e.g. a community near by where changes are seen.
3. Rewards and incentives. These give pleasure and encouragement.
4. Aspiration and goal achievement.
5. Satisfactory results.

The community should never feel entirely satisfied however, but go on changing and moving on to achieve new goals.

GROUP DYNAMICS

When people come together for a meeting or group discussion, it can be very helpful or not, depending on how the group functions. It is helpful when it functions as follows:

- 1) The group is not too large and everyone sits in a circle including the leader.
- 2) Everyone is welcomed and introduced.
- 3) The group elects a leader or chairman. Also if required a recorder.
- 4) The leader introduces the subject with few words and starts the discussion, then lets others talk.

- 5) Every one is encouraged to ask questions, share thoughts and experiences, and make suggestions.
- 6) No one dominates the discussion. The leader controls those who talk too much and encourages the silent ones to contribute.
- 7) The leader tries to keep a calm and friendly atmosphere, using interpersonal skills and humor if this will help (but never laugh at people, only with them).
- 8) If visual aids are used this often helps to make the issues clear, e.g. ideas can be noted down on a blackboard.
- 9) When there has been enough discussion, the leader asks the group to drop conclusion or to make a discussion on the action to be taken- what action by whom, where, and how.
- 10) After the meeting, what has been decided on is carried out and reported on at the next meeting of the group.

The health worker should try to be sensitive to the needs of each member of the group. If there are some who seem afraid to speak, it may be better to divide up into smaller groups, then come together again to share in the big group.

Whatever activities have been decided upon, the health worker should try to see that facilities are provided for carrying them out, and that group members take up their responsibilities.

PROMOTING LEADERSHIP:

There are three kinds of leadership:

1) When the leader is boss?

The leader plans, decides, directs and controls the program of action. The group submits and carries out orders but with not much interest. The work output is very low. The program is only supporting the leader's ego.

2) When the leader is guide?

The leader asks the group questions, and may accept some of their suggestions. The group has some influence and makes minor decisions, but is up to the level of the leader's ability.

3) When the leader is stimulator?

The leader educates the group for active participation and control. The role of leader rotates as members of the group show ability. The group controls and evaluates the program, and becomes responsible. The work output is well

above what the leader expected.

If the health worker has a superior attitude and is always telling people what to do, no leadership will be developed. The health worker should not always lead. She should be prepared to follow the lead of others. The aim of good leader is to promote leadership qualities so that the program will be carried on when she is not there, and the community becomes self-reliant.

Helping in Times of Stress

The health worker may frequently be required to help an individual or a family in coping with stress. This too is a health care activity for which the health worker student needs to acquire qualities and skills, which she can use herself and develop in other in the community. It can be called psychological support, emotional support, a helping relationship, or counseling.

The health worker needs to realize that 'being a helper in times of stress' is not the same as psychotherapy. Psychotherapy is long-term treatment of those with severe emotional problems or mental illness, by a psychotherapist. Counseling is also not giving guidance, but is helping normal people to adjust better to stress, in a shorter times than psychotherapy.

IDENTIFYING STRESS SITUATIONS

The health worker should visit as early as possible any family in her area in which there is a stress or crisis situation. Do not wait to be called, as these families are at high risk for mental health.

Examples of stress situation are as follows:

- 1) Where a person is dying or has died, especially if the person is father or mother of young children, or a previous baby.
- 2) Suicide or attempted suicide.
- 3) Where a newborn baby has some abnormality or a girl when a boy was wanted.
- 4) Wife or husband had deserted the family, or a girl has eloped (run away with her lover).
- 5) A person has had an accident or operation involving loss of a limb, breast or genital organs.
- 6) A person has been diagnosed as having disease such as leprosy, or cancer.

BASIC APPROACHES

Fr. Joe currie in the barefoot counselor describes two

different approaches of the helper.

1) *Dispensary (directive) Approach*

This kind of helper feels he knows what the problem is and know how to deal with it. He dispenses what he thinks is the cure, but those with emotional hurts are not cured in the way that those with physical ailments may be .he will find that it is not so easy, and that different skills are needed in order to help the person with mental stress.

2) *Non-directive Approach*

This kind of helper knows that he should be a listener. The one in need of help is relieved that someone is willing to listen while he tells of his difficulties. This helper is trying to really understand the person and to know how he feels. He accepts him and cares about him. He does not counsel nor offer a solution. He may come to accept himself and gain confidence to go on and find his way through his difficulty.

It has been found that counseling helps some people, and some are harmed. Success seems to depend on the qualities and behavior of consoler (helper).

CONDITIONS FOR A HELPING REALTIONSHIP

- 1) Person to person deep relationship, and sharing of feelings is necessary between helper and helpee (the one needing help). They are two people at work. They should meet each other at eye level, linked by the fact that both are persons. Status in life does not matter at this time. It is essential that what be said is kept confidential.
- 2) Lack of integration of the helpee
The helpee is unhappy, defensive, anxious and confused. He is not able to accept himself, not accepting others, and not accepting his present situation. He feels uncomfortable, not ok. He finds it difficult to think of other things and to make decisions.
- 3) Better integrations of the helper
The helper feels OK, and in better . Control of his feelings than the helpee. He is aware of his feelings, accepts them, and can reveal them to other if and when it is appropriate.
- 4) Listening and Responding

These are the two most basic skills required by the helper. It is not easy to listen with full attention and awareness. Not only that, but the helper should take note of how it is said –what feelings go with what is said? Watch for non –verbal message – facial expression and gestures, and tone of voice.

Responding should relate to the full message given by the helpee, both the words and the mood or emotions. The helpers listen and respond to reach understanding.

Further the helper has empathy. He is willing to set aside his own self temporarily to enter into the experience of the helpee . This does not mean that the helper has to feel the same way as the helpee , but he should understand how the helpee is feeling . An important question to keep to the present is How do feel now?

5) Acceptance

The helper has deep respect for the helpee as a person of value, without regard to his behavior, thoughts and feelings. Acceptance does not mean agreement. The helper does not ask the helpee to be like him, but to be his own true self. With this kind of acceptance, personal growth of the helpee can be expected.

6) Communicating

The helper communicates to the helpee his warmth and concern, by means of his attitude, concentration and verbal responses. The message he conveys is I am with you –may be I can help you.

THE HELPING PROCESS

The helpee needs to be able to change in two directions.

1) To wards Greater Confidence

He should move from negative to positive feelings. He needs to re-discover himself as a person of worth and of abilities, even with his limitations. He needs to regain self-acceptance, tolerance o others, and hope that something can be done.

2) Towards seeing a way forward, from a position of conflict and confusion to insight and decision.

The first direction is concerned with his feelings, and the second with his understanding. The directions the helpee takes during the interview will depend much on the helper's sensitivity to his needs.

The helpee may feel as though he is in a dark tunnel with no way out. His negative feelings, of being 'not ok' are a block to his understanding.

The helper should try to communicate to the helpee that he accepts him, to go along with him to find that way.

Stages of the Helping Process

(1) Rapport – forming a close relationship by means of recognition, acceptance and warmth on the part of the helper. The helper should put aside his own problems and needs for this time, and concentrate on the other's needs in a relaxed way.

(2) Un folding of the Problem

The helpee, knowing he has the full attention of the helper, feels secure ding, the helper concentrates on the person, as being more important than the problem. As the helper tries to understand his feelings, the helpee is encouraged to make efforts to understand him and to get to the root of his problem.

(3) Release of Negative Feelings

At first the helpee was full of negative feeling such as inadequacy, anxiety, anger or resentment. The helper respects all of the feelings of the helpee and helps him to express them. The helper accepts the helpee as he is with all his negative feelings. As he beings to accept him, the helpee loses most if not all of those feelings.

(4) Encouragement of Positive Feelings

The helpee begins to see a more positive self, reflected in the helper's respect for him. Having regained his self – esteem, he feels more comfortable with himself and with the helper.

(5) Growing Confidence to Explore New Ways

The helpee, by now feeling in a closer relationship with the helper develops hope that may be there is a way forward. They now work together on a search for root causes and new directions.

(6) Confrontation and Sorting out

At this stage, when the helpee has full confidence in his genuine concern, the helper may point out something he seems to be hiding or avoiding. He asks the helpee to explore this, and together they sort it out.

(7) Insight and Decision

Gradually new insight and possibilities emerge as the helper

and helpee work together. The helpee may by now have a clear idea of what action he can take, and confidence to carry out the plan. He knows too, that he can come again to the helper for evaluation and if necessary to renew their search for a better way.

THE HELPER'S CODE – WHAT TO AVOID AND WHAT TO DO ?

What the Helper should avoid?

1. A quick solution
2. Probing the problem
3. Long narratives, and past history
4. Complaints against another (for this, joint counseling is needed)
5. Advising, judging and moralizing
6. Over reassuring, supporting, or protecting
7. Over identifying, feeling with the helpee
8. Talking too much yourself
9. Trying to impress
10. Continuing counseling when there is no progress
11. Being bored, irritable, impatient or hostile
12. Breaking confidence

What the Helper should try to do?

1. Be yourself, and be relaxed
2. Concentrate and listen to full message (non – verbal also)
3. Respond in a way that will best help
4. Communicate interest, warmth and understanding
5. Accept, and appreciate the other
6. Confront if and when necessary with sensitivity
7. Help to sort out and clarify the problem
8. Help the other to be responsible and independent

Summary

- The health worker who needs to work efficiently, she should know about the appreciation, recognition, approval in social relations, acceptance of the individual etc.
- When she has to work with team, she should maintain good relation with the team.
- The team and the team leader should maintain the group dynamics.
- The leader must acts as boss, a guide and a stimulated to the group
- Health worker should identify the stress situation.
- Prepare a role-play on power in the community, in order to experience the feeling of different groups.
- The various conditions for helping relationships one person to person. Better integration of helper, acceptance, listening and responding and communicating.

QUESTIONS

- 1 Write briefly about inter personal skills?
- 2 How the health worker can motivate the community for change?
- 3 What are the group dynamics?
- 4 What are the stages of helping process?
- 5 List the conditions for a helping relationship

UNIT -V**Learning Motivation and change in Behavior :**

Motivation is a keyword in psychology. It is an inner force which drives an individual to a certain action. It also determines human behavior motivation may be positive (carrot) or negative (stick). Without motivation behavioral changes cannot be expected to take place. Positive motivation, is often more successful than negative motivation. Motivation is not manipulation. A motivated person acts willingly and knowingly . The terms motives, needs, wants , desires and wages are all used synonymously. These terms are inter related and inter dependent.

Kinds of Needs and

It is difficult to define human needs. There are many kinds of needs and

(1) Biological Needs :

These are biological needs. A hungry man needs food, a thirsty man water, a sick man medicine. There are also physiological needs such as the need for sleep, rest, recreation and fresh air. The nurse should be aware of these needs in the day – to – day care of the patients.

(2) Social Needs :

The need for company, the need for love and affection, the need for recognition, the need for education, the need for social states are social needs.

(3) Economic Needs :

Economic security, that is security from want is one which every one desires.

(4) Ego – integrative Needs :

The desire for prestige, power and self – respect come in this category.

Motivation is contagious , it spreads from one motivated person to another. We make use of motives and incentives in community health work. Motivation of eligible couples for a small family is an important activity in the national family welfare program. Motivation is required to encourage peoples participation in community health work.

Change in behavior :

Human behavior is result of physical and mental factors interacting with each other. They are knowledge, beliefs, values, attitudes, skills, finance, materials, time and the influence of family members, friends, co – workers, opinion leaders and even health worker.

The behavior can be changed by some factors such as follows 13

Env'tal stimuli like sight, smell, touch reach the cerebral cortex through home impulses. The information received is assembled and evaluated by a set of another impulses the cerebral cortex orders the behavior of the individual. This is known as conscious behavior. It is the behavior determined by the standards or expectations of the society.

Emotions and feelings behavior may be changed by our feelings and emotions. These arise from within the body. When we say a person is blind with rage or paralyzed with fear, we mean that he is a victim or captive to his own emotions. Ex. Thus effect behavior the seat of primary emotion.

Eg. Anger, joy, hunger is the thalamus in the brain. It is under control of cerebral cortex. If the central cortex influence is removed for eg. When an enjoy to cerebral cortex occurs, the person's behavior may be affected

NEEDS:

The individual behavior can be changed by his needs, wants, driver and urges are used synonymously.

Motivation: Motivation is an inner force with driver and an individual to a certain action with ant motivation, behavioral changes cannot take place

Intellectual perception:-

A person's individual perception, thinking and reasoning can change the behavior of an individual in a given situation. That is why each individual behavior in ways which makes sense to him.

Incentives and goals

Goals are the same as aims in life. People who do not have an aim or goal in life do not feel inclined or motivated to do anything. Some people are very ambitious provide a strong motive for action. There is a difference between an incentive and motives.

Incentive exists outside the individual e.g. food is an incentive for a hungry man. Prize is an incentive for a scholar. Incentives are among the factors that stimulate motivation and encourage specific behaviors. Incentives are either intrinsic or extrinsic, material or psychological self-determined or selected by others. An intrinsic incentive is the benefit that comes from solving ones

own problems. Extinsic incentives are rewards that do not relate directly to the goal towards which the desired behavior is aimed, for e.g. financial compensation of individuals undergoing sterilization operations for family planning. Material incentives are tangible goods or services, psychological incentives include the satisfaction, self-esteem, or enhanced capabilities gained through a proposed course of action.

Aspirations

An aspiration is a high aim, longing or ambition. When a person aims too high he may be disappointed and suffer frustration. Our aspirations should be realistic.

Leadership may be produced due to aspirations. Some who aspire to be great may become very selfish and hostile to others.

The best kind of aspirations is seen in a person who has no selfish motive but who wants only to serve others to the best of his ability. A health worker student who has this kind of aspiration will be highly motivated to learn, to develop her talents and the skills she will need. In addition, in fulfilling the aim of service, she will find an inner peace and satisfaction which is the best reward for such service.

Attitudes

Attitudes are acquired characteristics of an individual, there are more or less permanent ways of behaving. An attitude includes three components

- (a) A cognitive or knowledge element
- (b) An affective or feeling element
- (c) A tendency to action

An attitude has been defined as a relatively enduring organization of beliefs around an object, subject or concept which pre-disposes one to respond in some preferential manner.

Attitudes are not learnt from text books, they are acquired by social interaction, e.g. attitude towards person, things, situations all issues (e.g. government policies, program and administrative measures). It has been truly said that attitudes are caught, and not taught. Once formed attitudes are difficult to change.

Habits:

Habits is an accustomed way of doing things, habits are accumulated through generation emerge as customs all custom in turn, exited habits. Habits are formed perfect all influence human behavior habits are said to have 3 characteristics

- (a) They are acquired through repetition
- (b) They are automatic and
- (c) They can be performed only under similar circumstances. Habits once formed persist and influence human behavior.

Habit formation : Habits are formed . they are of many kinds e.g. habit relating to food, sleep, work, smoking, intake of drugs and alcohol etc. they are both good and bad habits.

Good habits promote health. Bad habits like drug dependence may ruin health. There fore cultivate of good habits is desirable. The principles involved in habit formation are

- 1 Habit formation should begin early in childhood, when the child has not yet formed any habit and is receptive to all influences.
- 2 Habits are formed by frequent repetition
- 3 Time taken to form habits. They can not be formed over night
- 4 There should be a strong emotional stimulus to form habits
e.g. taking a vow, reward, recognition etc.
- 5 Good habits kill bad habits the best way to brake bad habits in to cultivate good habits

Habits build up human personality. Man should not become a slave to his habits, he should remain a master. It is the job of the psychological to find out how good habits can be developed and bad one eliminated.

LEARNING

Learning is necessary for mains survival and for human progress.

Learning is defined as any relative permanent change in behavior that occurs as a results of practice or experience. It means acquiring so nothing new knowledge, new techniques, new skills, new fears, new experiences

Learning is necessary for man's survival and for human progress. It includes not only acquiring knowledge but also skills and formation of habits and development of perception. Learning depends largely upon intelligence. Learning also depended upon motivation and motivation depends on the need students fear to learn. Learning is a continuous process. It is both conscious and unconscious.

Conditions affecting learning

1 . Intelligence:- Learning depends upon the intelligence or mental faculty of an individual. It involves the activity of sensory adjustment all motor mechanisms and the body. The mental faculty is related to heredity, nutrition and I Q. children with low IQ are poor learners, they may not learn at all

2.Age :- The curve of learning reaches its peak between 22to25years of age. After the age of 30, there is short delaine. It has been appropriately said one can not teach to an old person with new learning abilities.

3. Learning situations:- Physical facilities for learning or institutions, teachers, text books, audio visual aids promote learning.

4. Motivation:- In order to learn effectively, there must be adequate motivation. Some of the powerful motives are encouragement, praise, reward and success. These are stimulate learning.

5. Physical health:- A physically handicapped person e.g. deaf, dumb, chronically sick can not learn properly.

6. Mental health:- Worries, anxieties and fears interfere with learning .

Types of learning there are three types of learning's

Cognitive learning (knowledge)

Affective learning (attitudes)

Psychomotor learning (skills)

Psychologists have experimented a good deal with animals and man to find out how learning takes place. They have proposed a number of theories

1. Learning by conditioned reflex:- It is well known that when dogs see food the being to salivate this an in born reflex Pavlov, the Russian physiologist discovered that if a bell was rung when the dogs were fed, eventually salivation could be induced by the ring of the bell alone. This is called conditioned reflex. The psychologist proposed that learning takes place partly by the mechanisms.

2. Trial and error :

The ideal approaches, becomes obvious. This method of learning is very slow, laborious and premature.

3. Learning by observation and imitation :

We learn a good deal by observation and imitation. A child copies or imitates gestures, facial expression and movements such as walking. He learns language by observation and imitation. Observation is an important element in medical exam. Observation promotes attention, dissemination and recognition. It was by observation, Hippocrates father of medicine separated medicine from magic. Part of the doctor's and nurses education has always been to observe the patient's condition, you to make decision based on these observations.

4. Learning by doing :

In this type of learning there is co-ordination of muscular responses with sensory impulses. Nursing skills like, bed making, applying bandages, giving bath are learnt by doing, learning to type write or learning a game or a musical instrument are all examples of learning by doing.

5. Learning by remembering :

We also learn by memorizing remembering dates, events memorizing a poem, remembering spaces etc.

6. Learning by insight :

When we are faced with a problem, we solve it by insight or mental exploration. When the doctor makes a diagnoses, some amount of insight is involved. It appears that human beings learn by a combination of methods.

Learning is measured by students performance. There are many ways of measuring students learn by multiple choice question, essay writing, project work, practical exam, oral exam etc. usually a combination of different methods is used.

Summary

- Motivation is an inner force with drives and individual to goal directed behavior.
- There are biological, social and economic needs or urges which help the individual.
- Behavior can be changed by environmental stimulus, emotions and feelings, needs motivation, intellectual perception etc.
- Goals are the same as aims in life.
- Incentives are outside the individual e.g food.
- Aspirations are high aims, longing or ambition.
- Attitudes are relatively enduring organization of beliefs around an object, subject or concept.
- Habits are accustomed way of doing things, habits are formed persist and influence human behavior.
- Habits build up human personality.
- The best way to break bad habits is to cultivate good habits.
- Learning is necessary for man's survival and for human progress.
- Conditions affecting learning are intelligence, age, learning situations, motivation, physical health and mental health.
- Learning can be categorized by knowledge, attitudes and skills.
- Learning can be explained in various theories and methods

QUESTIONS

1. Write the meaning of motivation ?.
2. Discuss the various drives or urges ?
3. Write in detail about change in behavior ?
4. Write short notes on
 - a. Incentives and goals
 - b. Aspirations
 - c. Habits
5. Explain in detail about the types of learning ?

SOCIOLOGY

UNIT-VI

Introduction:

The term sociology was coined by Auguste Comte, a French philosopher in 1837.

It derived from Latin word "Societus" means "society", the Greek word "logos" means "study or science"

Sociology is the "Science of Society"

No man is an island, long ago, Aristotle, the Greek philosopher, remarked that he who doesn't need society is either a beast or god from the time of birth until death, all normal human beings are one part of a group, the family or community.

In other words, a community is a net work of human relationships. It is a major functioning unit of Society.

Definition:

Sociology defines that "as the study of society that is, Study of man's behavior in groups or inter-action and interrelations among human beings of social relationships.

Sociology is the study of behavior of the individual, group, crowd, mob, audience and others social situations.

Attitudes of the individuals towards cultural and social values. Sociology can be defined as the study of relationships between human beings.

Groups:

Man is a social animal. In any society it is natural for individuals to form groups. The individual needs the group. Often a person belongs to several different groups at one time, to meet different needs.

A Social group is a collection of individuals two or more, interacting on each other, who have some common objects of attention and participate in similar activities.

A group is a social unit and consists of number of individuals who stand in definite status and role relationships to one another and which possess a set of values or norms of its own regu-

lating behavior.

Classification of groups:

Some groups are formed naturally others are organized for a purpose. A group maybe a large number only two or three persons.

According to Cooley, the group may be classified into two

- 1.Primary group
- 2.Secondary group

1.primary group:

It is the nucleus of all social organizations. It is a small group in a small number of persons come 'into direct contact with one another. They meet face-to-face association for mutual help, companionship and discussion of common questions. It is such as a family, a small group of close friends. Or a playgroup among children. This relationship of sympathy and mutual identification that is "we feeling" is present. The relation of the people may be close and the contacts should also be close. Due to more intimacy the members feel more belonging and of being one unit. Every member shares the interests. There is a common life give and take. The group is usually bound together and strong ties of affection and loyalty. Decision may be taken in a group through the mode of voting but some times there is quarrelling the members may even hate one another.

Primary groups are found in every culture and society. They are very important for the child in his social development.

2.Secondary group:

A secondary group is one which is large in size such as a city, nation, political party, corporation and labor union. A secondary group is a collection of individuals of some common interest or aim. Membership is voluntary and relationships are formal. The contacts become superficial and undefined. Every secondary group is controlled by formal rules or laws or it can't violate. These rules are necessary in every large-scale organization for securing

efficiency, order and economy. In a section group where members do things together there may be face-to-face relationship, but as a group grows bigger there is less direct contact between members. In the modern society, secondary groups have taken over many of the primary functions of the family, example in Bal wades, schools, churches. These institutions influence the attitudes, moral standards and behavior of people. Even also, the secondary group can't meet all human social needs, and the family is still the basic unit of society and most important for the child.

According to Sumner's classification the groups classified into two

1. In group
2. Out group

1. In group

The individual belongs to a number of groups are his in-groups. All other groups to which he does not belong are his out-groups.

There the family, the tribe, the college, to the person belongs are his in-groups of similar attitudes and reactions in their members. The members of such a group identify themselves with one another and with the group as a whole.

Ingroupness produces among them the sense of belonging together, which is the core of group life.

The members in the in-group feel that their personal welfare in bond with that of the other members of the group. Between them there is sympathy, co-operation, goodwill, mutual help and respect for one another's rights. They possess a feeling of brother hood and ready to sacrifice them selves for the group. The members signify their unity by the word" we

2. The out-group:

The out group attitude is antipathy which may range in mildly intense hatred. The members feel instead of 'we' they feel "they". So the treatment towards out groups are differ by the members. Example welcoming a daughter-in-law into the family. A wife working in a women's college becomes a member of the out-group for a husband working in a man's college. Though wife and husband are un-

der in-group members.

However the distinction between in-group and out-group is overlapping and each group satisfies it or the other aspect of his personality.

Structure and activities of groups and organizations:

A group or organization is made up of individuals each with a special position and part to play. We call this individual's 'role'. One person may have very different roles in several different social groups. He is a member of his family, a citizen of the state, a member of a certain caste or religious group, and functions with a different role in each of the groups of which he is a member.

Organization Structure means the role relationships the role relationships with the organization. Some persons are put in authority over others.

An organization chart shows the structure in a clear way. It shows each one's

- a area of responsibility (downward lines).
- b Authority for reporting and accounting (upward lines).
- c Horizontal lines, for exchange of information with those on the same level.

Lines of Communication (downward, upward and horizontal) should be observed by everyone for the health, harmony and efficiency of the organization. Everyone should know the proper authority for reporting, consulting, making requests and receiving orders. Each one should also know his/her own area of authority and supervision, and with whom to communicate.

Activities of group and organizations may differ very much, depending on the purpose for which the group is formed. Examples are as follows:

- 1 India as a nation, a republic, is itself a social organization. The state is the most important agent of social control, as it makes the laws and has power to enforce the law.
- 2 Political parties. These are groups working to get into power or stay in power.
- 3 Economic groups: commercial companies, transport companies, farmers' groups etc.
- 4 Religious groups, caste groups Harijans etc.
- 5 Professional groups such as teachers associa-

- tions, nurses associations, students associations.
6. Trade unions, for collective bargaining with management in factories or public services.
 7. Clubs for recreation, cultural activities, sports, drama, music, reading etc/
 8. Panchayats, for village administration and justice.
 9. Village advisory Councils formed of village leaders (formal and informal) for health and development.
 10. Mahila Mandals (Women's, groups), in which women learn many useful things such as family and home care, adult education, and women's development. By working together as a group, women can do much to help themselves.
 11. Youth groups: The village youth are stimulated to help in practical ways in village development projects such as sanitation. They help with health education through drama, song, films etc. By taking part in village leaders' meetings they learn to be good citizens.

URBAN AND RURAL ADMINISTRATIVE PATTERNS

Government administration means the processes by which the government carries out the laws and affairs of the nation and states. This is necessary for the welfare of society in order to:

1. Maintain law and order.
2. Protect rights of individuals and groups.
3. Provide education for members of the society.
4. Protect the people's health, including environmental sanitation, and health services.
5. Protect the old, handicapped, and deprived sections of society.
6. Provide for transport (roads, buses, trains etc.) communication (postal and telephone systems, radio etc) and Electricity supply.
7. Develop commerce and industry.
8. Improve the social and economic position of the people, including housing schemes, employment schemes.
9. Provide facilities for sports and entertainment.

It will be seen from the above, that all aspects of

modern life is under the control of Government. The Government has heavy responsibilities. Politicians of the ruling powers are Ministers for various departments such as for finance, agriculture, transport, education, health, and family welfare. The ministries have the advice of I.A.S officers (Indian Administrative Service). They also have the assistance of the police services.

Administration works like a complex machine. There is a network of administrators serving in Government offices in urban and rural areas, connected with the state and central administration.

In urban areas, administrative bodies include:

- 1 City Corporation – for a population above 2,00,000.
- 2 Municipal Boards – for 10,000 to 2,00,000.
- 3 Town area Committee – for 5,000 to 10,000.

In rural areas we have 'Panchayati Raj'. In each village there is a Gram Panchayat with a Sarpanch (president) as head. At Block level, the heads of all the Gram Panchayats form a Panchayat Samiti together with the Block Development Officer (B.D.O.) AND local Member of Parliament (M.P.) and Member of Legislative Assembly (M.L.A.s). At District level the heads of all Panchayat Samitis are members of the Zilla Parishad, which is presided over by the District Collector. The District Collector is a senior officer of the Indian Administrative Service (I.A.S).

CORPORATIONS, PANCHAYATS AND CO-OPERATIVES:

The city Corporation is made up of elected Councilors, and the head of the Corporation is the mayor. The Corporation is responsible for:

- 1 Road maintenance, and streetlights.
- 2 Water supply and drainage.
- 3 Sewage and refuse disposal, public latrines, destruction of stray dogs
- 4 Food sanitation and adulteration of food.
- 5 Public health and disease prevention. Including immunizations.
- 6 Registration of vital events.

Panchayati Raj is the means by which village people can share in managing and improving their own society and way of life. It is made up of:

1. The Gram Sabha, a meeting of all the adults of village. It means at least twice a year.
2. The Gram Panchayat, an executive body, made up of 15 to 30 members elected by the Gram Sabha. Members hold office for 3 to 4 years. The Gram panchayat is responsible for:
 - a. Public services such as sanitation and disease control.
 - b. Social and economic development of the village.
3. The Nyaya Panchayat is a village court, which tries civil cases and minor criminal cases. There is usually one Nyaya Panchayat for a group of five Gram Panchayats.

Co-Operatives: These are groups formed in villages in order to

- a. sell what is produced by the community.
- b. Help one another with financial capital for further production.

Crowd and Public audience:

Crowd is described as collection of individuals who are all attending and reaching to some common object, their reactions being of a simple prepotent sort and accompanied by strong emotional responses.

Crowd may be defined as a collection of individuals united temporarily and in close proximity to each other whose object may be different kinds.

A crowd is a gathering with one another for a considerable number of persons around a center or point of common attraction.

Crowds and audiences are temporary collection of human beings, in contrast to groups, which are more enduring. While groups have a proper structure, there is no such structure in crowds and audience. Though they are temporary and without structure. Crowds and audiences are of great significance in social life.

The crowd is the most transitory and unstable of all social groups. It is an unorganized group.

Crowd's form quickly and also dissolved quickly as we can

see in the market place. The crowd differs from the audience in that the participants in an assembly, public meeting, cinema house etc. Fall into the predetermined order and are arranged according to some principle of selection, but in a crowd there is no such order whatever.

In between the audience and the crowd is the gathering of people who assemble to watch a snake charmer or to listen to a lecture by a medicine vendor in the market place. In such assemblages there is a minimum order, the persons will stand around their focus is on the perform or the vendor. But in a crowd there is no definite order at all. People just gather together.

Milgram and Toch describe collective behavior as "group behavior which originates spontaneously, is relatively unorganized, fairly unpredictable on interstimulation among the participants". It includes crowd behavior riots, protest movement public revolt, etc, . The persons in a crowd may behave in the most noble and heroic manner as well as in the most savage and destructive manner.

The audience is a form of institutionalized crowd or follows certain rules and an accepted pattern of conduct. Audience is organized and guided by Intellect.

Summary

- Sociology is the study of human behavior and relationship between human beings.
- Groups – collections of individuals, two or more, interacting on each other. Who have some common objects of attention and participate in social activities.
- Primary and secondary group can explain groups.
- Groups also explained by in group and out group.
- Activities of groups and organizations may differ very much, depending on the purpose for which the group is formed.
- The government has many responsibilities.
- The city corporation is made up of elected councilors, and the head of corporation is the mayor.
- Panchayatraj is the means by which village people can share in managing and improving their own society and way of life.
- The Co-operatives are formed in villages in order to sell what the community produces.

- Crowd is a collection of individuals united temporarily and in close proximity to each other whose object may be different kinds.
- The audience is a form of institutionalized crowd and follows certain rules and an accepted pattern of conduct.
- Audience is organized and guided by intellect.

Questions

- 1 Define Sociology?
- 2 Write the classification of groups?
- 3 Write in detail about primary and secondary groups?
- 4 Write the structure of the group? Write the activities of group and organizations?
- 5 write short notes on any 2 of the following.
 - a Corporations.
 - b Panchayts.
 - c Crowd and Audience.

UNIT -VII**Social Process:**

Social process is the manner in which the relations of the members of a group, once brought together, acquire a certain distinctive character.

Social process are types of social interaction which either hold together, or pull apart, the society.

Social processes means the various modes of interactions between individuals or groups including co-operation and conflict, social differentiation and integration, development, arrest and decay.

Co-operation:

It is an integrating activity and is believed to be the opposite of competition. It means working together for the common interest.

Co-operation is a form of social interaction where two or more persons work together to gain a common goal.

It is the process by which individuals attainment of common objective. The people work together to solve problems. The work of each person may be different; but there is a common aim on the part of all, to complete the work.

Co-operation may be voluntary, when people willingly work together, or organized co-operation as in implementing development plans. It is a universal phenomenon.

Example: In the ants we can observe the co-operation is evident for survival. People learn their first lessons in co-operations as members of the family. Individuals cannot reach goals without cooperation.

Competition:

It is the most fundamental form of social struggle. Competition is an impersonal unconscious, continuous struggle between individuals or groups for satisfaction which because of their limited supply, all may not have.

Competition is the struggle of two or more persons for the same goal which is limited so that all cannot share.

It occurs whenever there is an insufficient supply of anything that human beings desire. It is a force, which compels people to act against one another. It is a natural result of universal struggle for existence. It may be the struggle for bread, struggle for luxuries,

power social position, mates, fame, sports etc.

Competition is helpful when it stimulates individuals or groups to greater effect. It is harmful when competition turns to conflict with possible violence. It is an effort to out do the competition in achieving some mutually desired goal. Its aim is to destroy the opponent. The competitor observes and follows the rules of competition, to eliminate fraud. When these rules are broken, it becomes conflict. It is never entirely unrestricted.

It is an unconscious activity. It is universal. It acts in the achievement of individuals to proper places.

It is a source of motivation and it is conducive to progress. It is a prerequisite to social progress and welfare of the group.

Conflict:

It is the social process in which individuals or groups seek their ends by directly challenging the antagonist by violence or threat of violence.

It is antithesis of co-operation. It is a social process in which persons or groups try to attain their goal by causing harm to each other, eg. In communal riots, party politics, class conflicts, religious conflict, village conflict and in war.

It is, in other words, a competition in its more occasional personal and hostile forms. It is a process by which one party attempts to destroy the other party.

Thoroughly, normally violence is associated with conflict, it can occur without it. It is a conscious action and personnel activity. Conflict lacks continuity and it is universal. Due to frustration and aggression. The conflict may be arising. It disregards social norms.

Assimilation:

Assimilation is the process where by persons and groups acquire the culture of other group in which they come to live, by adopting its attitude and values.

It is a social process where by individuals or groups come to share the same sentiments and goals.

It is a process of fusion in which person and groups acquire the memories and attitudes of other persons or groups and by sharing their experiences and history are incorporated with them in a cultural life.

At first there will be some conflict, but in time differences of interests, attitudes and values become fused into one cultural life. Eg: In India, assimilation of tribal people

It may mean the loss of valuable customs or qualities of the group. It is not limited to single field only. Eg: Forgeries being assimilated in the host culture.

It takes place in other cases also. Eg: For instance children are gradually assimilated into adult society as they grow up and learn how to behave.

Husband and wife, starting marriage with dissimilar backgrounds often develop a surprising unity of interest and purpose., So it is a social and psychological process.

It is a slow and gradual process. It is not a simple, but a complex process. Toleration, equal economic opportunity, sympathetic attitudes are facilitate, or favors the assimilation.

Isolating conditions of life, attitudes of superiority of the dominant group, excessive physiological, cultural and social differences between the groups causes the finding assimilation. It is a form of accommodation and is a permanent method of adjusting inter-group differences.

Adjustment

It is a process in which man tries to fit his needs to the environment, or the environment to his needs.

Adjustment is a process and not a state; it is continuous throughout the life.

Adjustment is defined as a satisfactory reaction of an organism to its environment. It involves effective adaptation. It consists of reduction of inner needs, stresses and strains. It depend upon the personality and needs of the individuals. As each individual differ, his needs differ and his way of adjustment to the environment differs.

A well adjusted individual is free from inner conflicts, and have ego development , accept responsibility and has sense of security, and curiosity and spontaneity.

By means of ego defense mechanism we are able to make adjustments to stress and strain and keep mentally healthy.

The Individuals and process of socialization:

Socialization is the process by which the individual acquires those behavior patterns, beliefs, standards and motives that are valued by and appropriate in his own cultural group and family.

Socialization begins as the means for acquiring distinctive human qualities than can only come from contract with other hu-

mans. Among these qualities are language, attitudes, a sense of social organization and moral conduct.

It; is a part of a life long process of adjustment. In life there are several goals, which require fulfillment, developing and maintain physical well being, meeting the demands of other people in the social environment and fulfilling one's own potentialities thus being led into the ways of a society, or group is called socialization.

Both socialization and adjustment depends upon the inter related effects of heredity and environment.

Finally socialization is a process of learning the beliefs, values norms and orals of our culture and society. It is something we experience in our every day lives.

Social learning takes place through:

1. Imitation – the child watches others' behavior and tries to do the same. Later, imitation helps a person to conform to the norms and culture of society.
2. Role – learning, e.g. a child plays the role of mother when playing with a doll. Student Health Workers learn the role the Health Worker by practice.
3. Punishment and Reward: The child needs to learn self-control to gradually take the place of control by punishment and rewards.
4. Development of Self: By giving a name to a child, he develops the sense of which he is – an individual. Gradually he should learn to see himself as others see him. If he feels guilty when he does something wrong, it means his conscience has developed. This is another important step in the process of socialization.
5. Co-operation with others is another valuable step in socialization. The individual needs to realize his role and the role of others in the team. He needs to learn how to communicate with and 'give and take' with others.
6. Adjustment: This is one of the more difficult lessons is socialization. It is not easy to live in harmony with others and to fit into a new situation. Often there are conflicts. Adjustment requires us to understand others even if we can only 'agree to disagree'.

Community Health Services:**Administrative pattern of the country:-****1) Centre:-**

India is a Union of 25 States and 7 Union territories. The constitution of India came into force on 26 January, 1950. The Union Executive consists of the president, The vice President, The prime minister and the Council of Ministers. Rules of business have been framed under the Constitution. The Parliament of India consists of the President and the two Houses of Parliament i.e.. The Rajya Sabha and the Lok Sabha. The Rajya Sabha Consists of 250 members, and the Lok Sabha 544 elected members. The main functions of Parliament are to make laws for the country, and to make finances available to the Government. The Parliament is assisted by several committees. The term of the Lok Sabha is 5 years.

2) State:-

The administrative pattern in the states closely resembles that of the Union. The states executive consists of a Governor, and a Council of Ministers with a chief Minister as its head. The Governor who is the head in each State is appointed by the president for a term of 5 years. The state Legislature consists of Vidhan Sabha and its members are chosen by direct election. In some states, there is also an upper House Known as Vidhan Parishad or Legislative Council. The powers of the state legislature have been defined in the Constitution.

The Union territories (Delhi, Punditry) are administered by the President through an Administrator.

3) Local Government:-

(a) Urban areas:- In big cities, the local Government Institution is known as corporation, and in medium and small towns as Municipal committees or Councils. The corporations are headed by elected mayors. The corporation deals with matters concerning Public health and Sanitation, maintenance of roads, bridges, markets, playgrounds, parks and education, Municipalities are headed by an elected president.

(b) Rural areas:- The rural areas are governed by the

system of Panchayatiraj or democratic decentralization.

Democratic Decentralization:-

In democratic Societies, the trend is to distribute power as much as possible to the people themselves so that they may be able to manage their own affairs. The "Panchayathi Raj" in India is nothing but democratic decentralization. It is a 3-tier System of Local self Government.

Village level - Gram Panchayat

Block level - Panchayat Samiti

District level - Zilla Parishad

Gram Panchayats are elected by Gram Sabhas Consisting of the entire adult population of the Village. The Panchayat Consists of 9 to 15 elected members. The Panchayats are responsible for agricultural production, rural industries, medical relief, mother and child health, maintenance of Village roads, streets, tanks & sanitation. It is envisaged that the Panchayat instantiations will control everything including primary health centers and local schools. The panchayat Samiti or Janapad Panchayat federates at the Block level, and the Zilla Parishad at the District level. The Panchayat Raj institutions have their own power of taxation. For the speedy dispensation of justice, Nyaya (Judicial) Panchayats or Village courts have also been established.

Summary

- Social process is the manner in which the relations and the interactions hold together or pull apart, the society.
- Co-operation is a form of social interaction where there are two more persons work together to gain a common goal.
- Competition is the striving of two or more persons for the same goal which is limited so that all cant share.
- Conflict is a social process in which individuals or groups seek their ends by directly challenging the antagonist by violence or threat of violence.
- Assimilation is the social process where by individuals or groups come to share the same sentiments and goals.
- Adjustment is a social process in which man tries to fit his

needs to the environment, or the environment to his needs.

- Socialization is a process of learning beliefs, values , norms and role of our culture and society.
- The community health services are pertaining to center, state, local government of urban areas and rural areas and democratic decentralizations.

Questions

- 1 Write the meaning of social process?
- 2 Write in detail about cooperation and competition?
- 3 Write short notes on
 - a Conflict
 - b Assimilation
 - c Adjustment
- 4 How the individual can learn the socialization process?
- 5 Write about the community Health services?

UNIT - VIII**Social Controls:**

Social controls are defined as "The sum of those methods by which society tries to influence human behavior to maintain a given order. It is a pattern of pressure, which a society exerts to maintain order and established rules.

It is of all the ways in which members of society are made to conform to the social Norms that is rules of conduct.

Social control is an influence, which is exercised by society that means group is better to exercise influence over the individuals than a single individual. This group may be a family, the church, the state, the school and the club etc.

Social control is also exercised for promoting the welfare of the group as a whole. For social control, educating is the most effective means of control and the family is the most significant agency. Reward is a positive means while punishment is a negative means.

Social control in modern society is mostly exercised through an appeal to reason. The increasing complexity of culture will increase rather than diminish the need for effective social control.

Traditions, customs and Habits:**Traditions:**

These are the ideas, habits and ways of behavior passed on from one generation to another. In rural areas traditions are important for social life. Being a guide to conduct they give a feeling of unity and security to the members of a community.

Some of the Traditions may cause difficult to poorer families. Eg. The Traditional marriage feast, which results in a heavy debt which the family can never repay.

Customs:

This is a social phenomenon. It is a rule or norm of action. Customs are the long established habits and usages of the people. These are part of the traditions; customs are common ways of acting. They are strong traditions, which have been followed for several generations and have great influence on the behavior of the people in the community.

Customs play a major part in regulating our social behavior. They determine our culture, preserve it and transmit it from generation to generation. Some of the customs were learnt by imitation from other people. All customs are not irrational. Customs,

which appear to be irrational, are sometimes reformed or even abolished due to deliberate thought of the concerned people. Today the educated class of Indians does not follow many customs of the ancestors.

Customs are important means of controlling social behavior. That are powerful no one can escape their range. They regulate social life especially among illiterate peoples to a great extent. It develops social relationships among people. Enemies are turned into friends by customs. It is not easy to change customs- they are social norms, which every one in the community is forced to follow.

Habits:

There are an individual phenomenon and in time may become customs. It means an acquired facility to act in a certain manner with out resort to deliberation or thought.

In acquisition of habits makes an action. Easy and familiar. For e.g.

Two meals a day, brushing the teeth, morning walking etc. All these are fall in the field of automatic behavior. It becomes both psychologically and physiologically easy for as to act in habitual way.

Habit is learning. We learn to do an act in a particular way, ie socially acceptable. From earliest childhood one is taught entire rules of behavior which involves the acquisition of habits.

Habits are developed by individuals and in time may become customs. Repeating certain actions, until they are done with out any conscious effort forms habits. Habits are important in skill development and help us to do many things quickly, easily and well, without having to think about each step every time. Good habits of Hygiene, eating, sleeping etc should be taught to children.

Bad habits such as smoking, talking alcohol and drugs hard to break. One should remain master of one's habits never become a slave to them.

Society may approve to some habits and disapprove of others, but society does not control the habits of the people Traditions and Habits affecting Health.

Traditions and Habits Affecting Health

The Health Worker needs to find out about the traditional beliefs and home cures in the community. It will be found that some of these are useful, some are harmless, but others are harmful.

Useful cures can be encouraged, e.g. the use of tulsi leaves and eucalyptus leaves for coughs and colds, neem leaves in cases

of chickenpox, and papaya seeds for intestinal worms.

Harmless beliefs can be allowed e.g. for hiccup, a bit of broom-stick is stuck to the forehead with saliva.

Harmful habits and beliefs are to be discouraged by patient health education, e.g. passing faces on open ground, branding a newborn baby with red hot iron, and use of cow dung on burns, wounds or ulcers (for more examples see WTIND by Werner).

Folk ways & Mores & laws:

a Folkways:

Folkways are like products of natural forces which men unconsciously set in operation, or they are like the instinctive ways of animals, which are developed out of experience. All the life of human beings, in all ages and stages of culture, is primarily controlled by a vast mass of folkways.

The folkways are recognized ways of behavior. These are the typical or habitual beliefs, attitudes and styles of conduct observed within a group or community. These are numerous and range from acts to behavior to the most serious. Their number is infinite. The folkways of eating are interesting. The Hindus do not take cow meat. Bengalis prefer rice to bread. The Jews do not take curds. Horse meat is eaten by Europeans, but not in USA.

Folkways are changing continuously "folkways connected beliefs and practiced regarding to family, property and marriage etc – we must follow the folkways because these are binding. They are great savers of energy and time. They are foundation of every culture. If the individual does not follow them, he may be socially isolated.

Mores: There are regulators of behavior. Mores are defined as "those customs and group routines which are thought by the members of the society to be necessary to the groups continued existence.

The mores represent the timing character of the group or community. They are always considered right by the group that shares them; they are morally right, their violation morally wrong. These are more effective and are always molding. Mores determine much of our individual behavior; they identify the individual with the group. Finally the mores are the guardians of solidarity. Mores hold the members of the group together. Mores represent the norms of the behavior in society; they can make anything appear right. Mostly people conform to mores because they think it right to do so or because they have become habituated to it.

Laws :

It is defined as a formula, which expresses the necessity of action. Laws are the rules of conduct which normal men know they must observe in order to preserve and promote the benefits derived from life in society. Law is the standard of conduct. It is distinguished from morals, customs religion. Law is also defined as a body of rules with is recognized, interpreted and applied to particular situations by the courts of the state. Law is a command given by a superior to an inferior. Law is definite, clear and presses. Law is a make it needs a special agency for enforcement. It is specific and is more flexible and adaptable. Laws disappear only when abolished by a recognized authority. Laws are a more idealistic. It also deals with matters with derived to the life of society.

Laws In addition to the social controls of traditions, customs, folkways and mores, every modern society needs to have laws.

Among primitive tribes, the folkways and mores were severely enforced and became a type of law, called 'customary law'. In civilized societies, laws are:

- 1 Made by acts of the legislature.
- 2 Applied by courts, and
- 3 Enforced by the police.

Laws are general for the whole country, or State. They are formal social controls, which can be applied by force. Laws are influenced by folkways and mores, but laws may bring about changes and social reforms.

SOCIAL PROBLEMS AND ANTISOCIAL PRACTICES

Drug addiction:- It is defined as a state of Periodic or chronic intoxication detrimental to the individual and society produced by the repeated intake of habit forming drug.

To call a person a drug addict the following criteria must be satisfied

- 1 Psychological dependence.
- 2 Physical dependence
- 3 Development of tolerance

Reasons for drug dependence are :

- 1 Curiosity and natural tendency to experiment with drugs.
- 2 Disturbed home environment i.e broken families, de-structed families and disturbed families.
- 3 An escape phenomena from tensioned and frustrations in life for e.g. unemployment
- 4 Impact of culture.
- 5 Ignorance regarding of habit forming nature of the drugs
- 6 Lack of communication i.e generation job

The types of drugs are :

- a) Narcotics – opium, morphine, heroin and codeine.
- b) Hypnotic sedatives: e.g LSD
- c) Stimulants: cocaine and amphetamine
- d) Tranquilizers: e.g chlorpromazine

Management Which includes

- Identification of drug addicts and their motivation for detoxication.
- Hospitalization
- Rehabilitation

Simultaneously with medical treatment, changes in environment are important. The patient must affect a complete break with his group.

Prevention measures include education of target groups and the general public through TV, radio, leaflets and posters

Dowry system:

Dowry started as an innocent custom a symbol of love from parents to their daughters on the eve of her marriage. But it has in recent years grown into a social evil with many instances of bride-burning and suicides.

Under the dowry prohibition act, 1986 the minimum punishment for taking or abetting the taking of dowry has been raised to 5 years imprisonment and a fine of 15000 Rs.

Unmarried mothers:

We do not have accurate statistics regarding unmarried mothers in India. Social customs and traditions in India, the problem of unmarried mothers in India must be insignificant. Such mothers have a multiplicity of needs not only for medical termination of pregnancy but also for understanding and warmth and guidance all of which nursing can

provide.

Handicapped:

The handicapped are blind, deaf, and dumb, orthopedically handicapped, leprosy affected, mentally retarded, and emotionally and socially handicapped.

The rehabilitation services are available for handicapped in India are as follows:

- 1 Medical care facilities
- 2 Education for blind, deaf and orthopedically handicapped
- 3 Vocational training
- 4 Job placement and sheltered work shops
- 5 Pensions, scholarships and allowances for the education and training of the handicapped.

During the fifth five year plan there is provision for establishment of four national institutes for the blind the deaf and orthopedically handicapped and mentally retarded.

Social problems may start with individual problems such as alcoholism, prostitution, venereal disease or delinquency. When these problems affect a large number of people they become social problems and a danger to the welfare and safety of the whole community.

Many social problems are due to the population growth, which leads to overcrowding especially in city slums. We then have problems of housing, sanitation, communicable diseases, poverty and crime.

It will be seen that many of the social problems are connected with community health. In order to solve social problems, there is a need to coordinate activities in the areas of social welfare and assistance, community health services, and laws to control social evils.

Delinquency and Crime Juvenile delinquency refers to the criminal offences by children and youth. In an adult the delinquent act is called a crime.

There is a high rate of delinquency and crime in the city: in market places, bus stands, railway stations and near cinemas and hotels. Thefts are common, also burglary (breaking into steal) and sexual offences.

Juvenile delinquency often starts with a breakdown of family

life, and lack of affection, also of controls in the home. The child fails to socialize. He does not learn to accept the norms and values of society. It may be due to poverty that the child runs away to the city. He may steal money for food, smoking and drinking. Some are confused by seeing films or reading magazines which show a different way of life than that of the village.

With the widening gap between the 'haves and 'have-nots the individual with a hunger for more money or possessions often steals to satisfy that hunger. Later he gets drawn into a criminal group. There are even big crime organizations, which are able to carry on successfully, using bribes and threats to get what they want and escape the law. Anti-social practices of this type are a serious danger to the welfare of society.

Prostitution this is an ancient social evil. It is more common in urban areas. The causes for a girl becoming a prostitute may be similar to those causing boys to become delinquents. Sometimes it is because of shame when she gets pregnant without being married. It may be because she wants money to dress well, or to give financial help to the family.

Another reason girls become prostitutes are kidnapping, or someone in the trade promising a job in the city. Soon the unfortunate girl is imprisoned to the men who pay for this.

The Government of India has passed 'The Suppression of immoral Traffic Act' to control prostitution. Raids are made on brothels and girls taken to jail, but it is not difficult for the brothel-keeper to pay and get her back. Rehabilitation programmers are needed to help these girls and limit this problem.

Beggary As in the case of prostitution, in the case of begging also there are organizations in the cities, which kidnap or lure children to make them beg in the streets. Sometimes children are maimed (made into cripples) in order to get more money from the sympathetic public. This kind of beggary brings a lot of money to the organizers.

In other cases beggary is a family profession.

In general the public think of alms giving as a virtue. The social problem of begging can be ended only when there is a social change in the attitude to begging.

Alcoholism moderate drinking is not a problem, but excessive drinking and addiction to alcohol is a social problem. The person who is addicted may do harm to his family, and leave them

without money. His

work suffers or his job is lost. He may harm others also when drunk.

Because of the harmful results of drinking alcohol to the individual to his family and to the society. Gandhi promoted prohibition, but for various reasons this is now dropped by most of the states of India.

Summary

- Social controls are all the ways in which members of society are made to conform to the social norms.
- Social control in modern society is mostly exercised through an appeal to reason.
- Traditions are the ideas, habits and ways of behaviors passed on from one generation to another.
- Customs determine our culture, preserve it and transmit it from generation to generation.
- Habits are acquired facility to act in a certain manner without resort to deliberation or thought.
- Some of the Traditions are useful to people, some are harmful to the people.
- Discourage harmful habits and beliefs of the people.
- Folkways and mores are like products of natural forces, which regulate the behavior.
- Laws express the necessity of an action.
- Social problems like drug addiction, dowry system, Beggary, alcoholism, Delinquency with crime should be solved for development of healthy society.

Questions

1. What is meant by social control?
2. Write about traditions, customs and habits?
3. Write short notes on
 - a. Habits
 - b. Folkways and Mores
 - c. Laws
4. List out the various social problems present in the community? write in detail about the juvenile delinquency and crime.

UNIT-IX

Social stratification:

It is the horizontal division of society into higher and lower social units. These divisions called social strata include the caste and class groups. It is the division of society into permanent groups or categories

Linked with each other by the relationship of superiority and subordination. Some individuals and groups are rated higher than other on the basis of opportunities and privileges that they enjoy.

For eg In India doctor and engineers are rated higher than teachers. Status and role, economic and political groups are also factors in social stratification.

Caste:

It is a collection of families or group of families bearing a common name, membership of which is hereditary, imposing on its members certain restriction in matter of social interaction. It is a hereditary type of social group. The Hindu social order is based on the caste system. Membership is by birth. The group or caste has a common name and traditional occupation. The members have to marry within their own group, or else be treated as outcaste. The rules about food and drink are very strict.

The society is divided into various caste with a well developed life of their own. The status of a person does not depend on his wealth but on the traditional importance of the caste in which he had born. Status is determined not by vocation but by birth.

There are regular caste councils to regulate and control the conduct of all caste members. Their rules over all caste members work powerfully which keeps the people in their proper places.

In our society, the classes are divided from high, low. Thus Brahmins in India stand at the apex of the social ladder. Because they are produced from the purest part of the the supreme i.e. from the mouth. So a Brahmin is entitled to whatever exists in the world. The whole world is his property. Others live on his charity. The speech uttered by Brahmins never fails to

come true. In contrast high position enjoyed by Brahmins the sudras was subject to lowest they are untouchables with they could not use the public roads or public well.

Member of the first these classes must not travel the company of sudras. If sudras violate the rules, they may under in go sever punishments. Ever the well is polluted if a low Carte man draws water from them. The public schools did not admit impure caste. Sudan could not study the scared literature.

A person born in a Caste remains in it for life and dies in it. Members of a particular caste are expected to follow the caste occupation. They can't change to other occupation. Generally the impure castes are made to live on the outskirts of the city.

The lowest and most depressed groups are known as " scheduled castes". To help them up the social ladder, they are given opportunities and reservations in education and jobs. There is an "unsociability offences Act" to control the ill- treatment of untouchables.,

Social class:

It is one or two or more broad groups of individuals who are ranked by the members of the community, in socially, superior an inferno position. The members of the upper class are master and their made of dress typing way of recreation with expenditure are high

Where as the members of lower class are servants and mode of lining is manual labor.

In modern communities wealth is the primary determinant of social stratification there is an intimate relating between the social close and the occupation, which indicates the mode of life and general social standing. The members of class poser's common interests, they're brought into consciousness by the need of defense against the common enemy.

Social class a social class is a section of a community different from other sections because of social status. Social status may be because of birth (e.g. royalty in U.K. or Nepal) or race. In the modern society social status may be related to an of the following: income, occupation, education, political power, economic power, or religious power. Those who share a common status unite in a social class, and they feel belong in that class.

The 'upper class' includes those with greater wealth and prop-

erty. Besides status, they often have power over the 'lower' class, and power may be mis-used. The poor are exploited and become still poorer. There is a gap between the rich and the poor, which is becoming wider.

The 'middle class' in Indian society is growing in size and strength. This is a strata between the upper and lower classes. It is based on economic factors and includes doctors, college professors, business managers, office workers and factory workers. A middle-class consciousness and culture is developing in modern India.

Mobility:

People in society continue to move up and down the status scale is called social mobility. It is to be distinguished from migration which is movement in geographical space.

Mobility has been classified as Horizontal mobility, Vertical mobility. Horizontal mobility's refers to change of residence or job with out status change. E.g. transfer of teacher from one school to another.

Vertical mobility refers to movement in any or all of the three areas of living class occupation and power. Mobility may be downward or upward.

This term can mean a change in social status, or a change of place, e.g. from rural to urban area. In India today, large numbers of rural people migrate to the cities. They go in search of work, or to beg in order to live. If an 'untouchable' goes to live in the city, he gets away from the depressed social status he had in the village. If he finds a way to earn money he may move up from 'low class' to 'middle classes'.

Suppose a Brahmin moves from his village to the city. He will probably lose the superior social status he had before. In the urban community there is much more social mobility than in the rural community.

Independent India has adopted the principles of equality, freedom and justice. The Government planning and legislation are slowly bringing about social change. Education and the influence of foreign cultures, also politics and inter-group conflicts are other reasons for social change and social mobility.

For example, when a certain social group accepts Family Planning the smaller number of children get a better education, and later some may get top positions in society. In this way a

whole group may move up in social status.

Social Status:

It is a social position that determines for its possessor, apart from his personal and social services, a degree of respect, prestige and influence. It refers to individuals. Total standing in society the individuals ones respect by virtue of his social status.

Status means the position of an individual in the group, or community. Status may be because of age, sex, caste, class, occupation, marriage or achievements. For example, the elders in the family and in the community are usually respected. By his own ability and efforts, a person may achieve status and respect.

Patterns of leadership

Leadership is found in every society. The society can be divide into (a) the leaders and (b) the followers.

A leader is one who leads a group of people. The leader has influence or power over the group.

It is said that leaders are 'born'. Heredity does seem to be one factor, but there are others such as development of character and good personality. Socialization is important in development of leaders.

Effective leadership depends partly on the people who are the followers. Some want strong leaders who dominate (authoritarian type). Others want leaders who allow for independence (democratic type). The Health Worker should realize that the power of leaders may be used for good or for evil. The leader can use power based on love and good relationships, or based on fear.

A really good leader identifies (is one with) the group., and enables them to plan and take group action to bring about change for the better. Thus he helps to make the followers also into leaders.

In a community we find the following kinds of leaders:

1. Formal Leaders

- i Official- those employed by Government, including the village Sarpanch, schoolteachers, post-masters, tax-collector etc. Their leadership goes with the post, and may be only temporary (they may be transferred).

These leaders may or may not enjoy the respect of the community.

- i Functional - those elected or appointed to be leaders of non-Governmental organizations such as co-operative societies, Youth Clubs and Mahila Mandals.

2 Informal Leaders

- i Natural leaders – those with influence in the village, who may be housewives, dais, or shop-keepers etc.
- i Status leaders – those who are respected and have the confidence of the people because of age, caste, religion, wealth or education.

3 Opinion leaders

Opinion leaders are those who would be able to help in promoting and supporting community health and development programmes. We need leaders who are convinced about the need and the value of the programmes, and who also have qualities of leadership which can be developed. Some of the formal and informal leaders may have the right qualities and motivation and could be used. Other people too, such as those who have accepted family planning methods and are satisfied, may make good leaders for promoting the F.P. programme.

The opinion leaders should be identified by health workers, and training camps arranged for orientation in health and family welfare programmes.

It is important for success of community health and development programmes, for the team (including FHWs and MHWS) to get the confidence of the community leaders from the start. These leaders can help a great deal to bring about the needed changes. On the other hand, if they are not convinced about a programme they can cause it to fail.

Community leaders should be involved in

the planning, implementing and evaluating of programmers for health and family welfare in their villages. This is vital for the programmed to be effective, and to be 'of the people, by the people, and for the people'.

Regionalism:

This refers to different areas where the population has a distinct culture, or a common language, or political outlook. For example, within India some neighboring states may join together in presenting their needs and demands to the central government. Countries of South Asia may unite in order to voice the opinion of the region at meetings of the United Nations Organization.

Regionalism can be harmful and lessen unity if the people of one state or language try to control an area and refuse rights to others.

The community feeling within a region is called regionalism. It gives man a feeling of others with his fellows and with the earth they share. It involves a cultural wholeness. The fundamental aim of regionalism is the closer integration of the rural civilization and urban civilization. It is the development of an integrated large community within the city and country.

Family:

It is a system of relationships existing between parents and children's. It is a group of persons whose relations to one another's are based upon consanguinity and therefore retro-fire relation to another.

Functions of the family:

- The regulation of sexual behavior and reproduction.
- Care and training of children.
- Co-operation and division of labor.
- Primary group satisfactions.
- It also helpful for socialization, race perpetration.

Regulation and satisfaction of sex needs with economic func-

tions.

The functions of family are affectional, economic, recreational, protective, religious and educational.

The Modern Family:

The Modern family has 'decreased control of the marriage contract. Women in modern family have attained an increasing degree of economic independence. In modern family the woman is not the devotee of man, but an equal partner in life with equal rights. It is a smaller family. It is no longer a joint family. It is secular in attitudes.

Types of Families:

- a The Nuclear Family, of father, mother and children. By tradition, father is the earning member and mother stays at home to care for the family. In a modern family these roles may change. When mother has a better job and earns more than father, there is often conflict, and children become insecure and may become delinquents.
- b The Joint Family consists of a number of married couples and their children who live together in the same household. If it is a matriarchal family (as in Kerala) the bridegroom comes to the bride's home and the senior female of the household is the head of the family. In a patriarchal family, the wife has to stay in her husband's home and her social status is very low. There are often problems related to dowry and property.
- c Three Generation Family, in which young couples continue to live with their parents and have their own children.

Joint Family:

The family has a joint property and every person has his share in it since the time he is born. The earnings of all the members are put in a common fund out of which family expenses are met. The uses of joint family are

- It sees economic progress.
- Division of labor secures the advantages.
- It secures economy of expenditure.
- It provides opportunity for leisure.
- It provides social insurance.
- Avoids fragmentation of holdings.
- Demerits are finders the development of personality
- Leads of quarrels

- Encourages litigation
- Privacy denied.
- Un favorable accumulation of capital.
- The joint families are disintegrated due to industrialization.
- Extension of communications with transport.
- Decline of agriculture and village trades.

Marriage:

Marriage is an institution which admits adult's men and women to family life. It is a stable relationship and in which men and women is socially permitted to have children. The right to have children implying the right to several relations.

Types Of Marriages are:

- 1 Polyandry in which one wife having many husbands .
- 2 Fraternal polyandry- One wife is regarded the wife of all brothers who have several relation with her.
- 3 Polygon- One husband in having two or many wives at a time.
- 4 Monogamy-One man marries are woman at a time.
- 5 Experimental marriage: Two people before they settle down to a life of permanent union. A man and woman may be allowed to lead matrimonial life temporarily in order to find out if they can settle down permanently or not.
- 6 Companionate marriage: This is the marriage of two persons on the understanding. If there are no children, the marriages may be dissolved by mutual consent.

THE FAMILY- STRICTURE AMD ACTIVITIES

The family is not an organized group. Members are joined into a group because of marriage and kinship. They are related to one another, share the family home, and a common kitchen. The family begins with marriage.

In most families there is one man to one woman; this is monogamy type of society. Polygamy (two or more wives) is practiced in some societies, e.g. Muslim.

The way in which man and woman come together (mate) also varies. In India it is usual for the elders or parents to arrange the marriage of their children. Usually the couple must be of the same religion and caste. It is also the tradition in India for elder sisters to be married first, then brothers.

In Modern society, often there are 'love marriages', in which the man and woman marry their own choice of partner. This type may be interacts, even inter-racial marriage.

In some societies, marriage is a social contract, in others a religious sacrament. Registration of the marriage makes it legal. If the marriage breaks up. One or other partner may get a divorce.

Broken marriages have a very bad effect on the children, and are not good for the society. We should do all we can to help in keeping good relationship between husbands and wives. This is most important for the total family and community welfare.

In India the marriages are between any two Hindus. It based on exogamy i.e. consanguinity marriages.

Summary

- Social stratification is the horizontal division of society into "higher and "lower" social units.
- Caste – it is a collection of families or group of families bearing a common name, membership is hereditary.
- Class is one or two more broad groups of individuals . Whom do the members of the community in socially superior or inferior position rank.
- Mobility is movement of the people continuously from ups and downs
- Social status is a social position of the individuals in the group or community.
- A good leader identified the group
- Regionalism is a common feeling with in a region.
- Family is a system of relationship existing between parents and children.
- Marriage is an institution which admits men and women to family life.

Questions

1. What is social stratification?
2. Write in detail about the importance of family?
3. Write short notes on
 - a. Caste
 - b. Class
 - c. Mobility
 - d. Social status
4. Write in detail about marriage systems.

UNIT – X

The community is a territorial group with shares a common soil as well as shared way of life. People living in the same locality come to have a distinctive community life. The community is more than the locality it occupies. It is also sentiment. The people living at a common place and leading their levies in one another's company come to develop "we – feeling". They share common memories and traditions, customs and institutions. Today none of us belong to one inclusive community. Under modern conditions attachment to local community is decreasing.

Types of community:

There are two types

- 1 Rural Community
- 2 Urban Community

1. Rural Community:

In this people living close to and well acquainted with each other. There are immediate contacts between the neighbors in a village.

Characteristics of village Community:

It has several fact ness the important ones are the following

- 1 The village people have a sense of unity. The relationship between people is intimate. They personally know each other structurally and functionally the village is a unit.
- 2 In the village, people assist each other and thus they have close neighborhood relations.
- 3 In the village still there is joint family system is retains. The agricultural occupation requires the cooperation of all the family members.
- 4 The People in the villages have deep faith in religion and duties.
- 5 The village people lead a simple life. They are simple plain people believing a god.
- 6 Their behavior is natural and not artificial. They live in life. They are free from mental conflicts. They are hard working the level of moralities is high. Social crimes are very rare. Their life is governed by norms.

Changes in the Village:

Ancient village community was a very small group of ten or twenty families.

The feeling of familiarity was so great that if a child wandered off from the home. The parents had nothing to worry because there are numerous relatives in the village. They laid a common property. Due to lack of communication and transport the members of the community were separated due to distance.

In the medieval village community so many changes. The keen ship did not played for a long time to bend people. The land is belongs to king and the slave with masters.

The modern village community, there is a rise of industrialism. Now urban group began to dominate civilization. Urbanization is increased with dominant rural social forms have been changing. Rural people follow the urban forms of life. Kinship bond is broken due to increased size and mobility of population.

Land is no longer cultivated jointly. They continue to work the land but then try to live in the mode of the city. Rural social forms are changed due to urbanization. By the large the rural way of life has been writhing away.

2.Development of Rural community:

The nation's Five Year Plans for development are mainly for improving life in rural communities. Development of the people themselves is most important for success. There needs to be:

- a Social preparation of the community. The health and development personnel will need to get know, understand, and work with the people. The people need to feel it is their own programme for their own better way of life
- b Co-operation between B.D.O. staff, the health team, community leaders and the people themselves, to find out the community problems and needs. If possible, community members should be used for data collection (survey).
- c Planning with the community. It is best to select first programme which will cost little and bring quick results, e.g. kitchen gardens for better nutrition, or an anti-fly campaign to lessen the problem of diarrhea and dysentery.
- d On -going Community leaders' meeting, for further planning, implementing (carrying out the programmers) and evaluating (how useful is the programme?).

For health programmers, the role of the Health Worker is to

assist the committee, provide technical information and training, and stimulate to action.

3. Major Rural Problem:

- a Health problems, the most common being: Malnutrition, especially in under – five year children. Communicable diseases and infection. Too many child deaths and maternal deaths. A home accident especially burns and scalds.
- b Education – the problems of illiteracy, child labor, school dropouts, too few teachers (one teacher schools), also lack of equipment, buildings too small or in need of repair etc.
- c Transport and communications – lack of good roads, especially in rainy season, causes problems of supplies, marketing and taking the sick to hospital etc. The problem of villages being cut off from other communities and urban facilities, results in slow progress and development.
- d Agriculture – the farmer may have problems such as insufficient water supply, especially in failure of monsoon, electricity cuts, and repair of pump-sets, tractors etc. Delay in getting supplies of seed, fertilizers, especially if he has n capital reserves.
 Labor problems – laborers may not be available when needed, or coolly demands are high.
 Procurement price given by Government may be too low, or demand for products is low.
 Sickness and death of flocks and herds (sheep and cattle).
- e. Population and employment – Agriculture can no longer provide enough for the growing population in rural areas. Some rural communities have taken up handloom weaving or other small industries, but these are not without many problems. Young men leave the village for urban areas in search of jobs. Sometimes whole groups of families migrate to a distant place to work for a contractor (building, mining and other project). They get advances from the contractor to buy food, and soon may become 'bonded laborers' and never get bat to their own village.

Urban Community:

It indicates fashionable living, wide acquaintance with things and people and political manner of speech. It is limited not only to urban, slowly extended to rural people also. Every village possesses some elements of the city while every city carries some features of the village.

Development of Urban Community:

City develops according to whatever resources available there. In ancient times these resources were available by the people. Slavery forced labor, taxation by the ruling are main factors for development of urban community. The extension of man's power over nature is a primary condition of the modern growth of cities and city population.

Industrialization and urbanization has also been greatly stimulated by the new techniques of production associated with industrial revolution. The invention of machinery, the department of steam power and to work in the factories, many people from village are abandoned to urban. Industrialization has stimulated city development, trade and commerce. Ancient civilizations cities grew wherever goods were good and commercial transactions were carried. Due to development of transport with communications, the facilities can be transported and develop urban community.

Economic pull of the cities:

Cities can provide more opportunity for personal advancement than rural areas. Employment opportunities are more in the city. Even businessman comes to the city from the village to avail of better opportunities for making higher profits. Education and recreational facilities and amusement theatres are available in cities which contribute the urban community growth.

Characteristics of Urban community:

- Homelessness is a disturbing feature of city community.
- Energy and speed are the traits of a city. The people work at a speed, day and night which stimulate others to work.
- People indulge in too many activities. Cities are consumers of population.
- Facilities for preserving health such as hospitals and medical specialists are many and excellent.
- City has more heterogeneous than the village. It is most

favorable breeding ground of new biological and cultural hybrids. The personal traits, the occupations, the cultural and the ideas of the members of the urban community vary widely. Class extremes characterize urban community. In a city, the people rolling in luxury and living, in grand mansion as well as people live in pavements. The best forms of ethical behavior and the worst racketeering are both to be bound in cities.

- Superior creativeness and chronic unemployment are alike the city is the home of opposites.
- The home problem in a big city is very acute.
- The middle class have insufficient accommodation the child doesn't get any play space.
- The city dwellers treat the strangers he meet as animated machines rather than as human beings.
- They meet without speak without knowing each other's name.
- A citizen may live for several years in a city and may not know the names of one-third of the people who live in the same city area.

2. Urban Adjustments Life is quite different in towns and cities than in the village. Traditions, customs and modes do not have much influence over those living in urban areas. Family life is less disciplined, and there is no community support. There is much more mixing among people of very different backgrounds. This brings about changes in habits and attitudes. Family conflicts are common.

For the individual's, and for families coming to live in the urban area, conscious efforts need to be made to form good friendships and to live in harmony with others. There are many opportunities for joining social groups for various activities.

People need to take up the challenge for forming a new 'community' even in the city, for mutual help and action to solve problems.

3 Urban Problems The main urban problems may be listed as follows:

- a Growth of slums and in the number of pavement dwellers.
- b Lack of employment, leading to poverty, under-nutrition, disease, and anti-social activities.

- c Failure of people to adjust, causing mental illness or delinquency.
- d Crime and delinquency, begging and prostitution.
- e Overcrowding in dwellings, buses and streets.
- f Failure in administration (e.g. public services such as refuse collection and disposal) to cope with the rapid growth of the population.
- g Road accidents.
- h Health problems due to overcrowding and to stress of urban living.
- i Political and industrial unrest and conflicts.

SOCIAL AND ECONOMIC CHANGE IN COMMUNITIES

What influence change?

The following are some causes for change in communities:

1. Industry and technology of modern life. New machines and new methods of doing things are continually being introduced.
2. Introduction of different cultures and new attitudes and values e.g. because of rural - urban interaction.
3. Population growth: This brings the need for more food production, schools, houses and jobs, and leads to struggle and corruption in the keen competition.
4. Inter-group conflicts, e.g. between labor and owner, between the 'haves' and 'have-nots' (class conflicts) between tribal and non-tribal populations, between low castes and upper castes and between youth and the elders of society. Such conflicts sooner or later bring about change.
5. women's movements: Greater freedom of women and more equality of sexes, leads to changes in family life and norms of society.
6. Political forces: The desire of people to share in decision-making is growing. Political power can bring changes in laws.
7. Government plans and programmes for health and development. Planning is directed towards social change.

Organizing the Community for Change

An important task of the Health Worker is to assist

the community in organizing itself for change.

Inspire of 30 years of planned development, the rural poor are still poor. Most of the babies are born into a world of hunger, illiteracy, disease, oppression injustices and a struggle for existence. This section of the community needs out special attention. They need to be helped:

- 1 To benefit from employment or to be trained for self - employment in the rural community itself.
- 2 To get useful employment or to be trained for self- employment in the rural community itself.
- 3 To develop leadership, in order to fight for justice.

The section of the community whose needs are less basic, also need to be helped to adjust to the changes of the modern age. This section needs to be made more aware of the injustices and struggles of the poor. Migration to the cities should be stopped, by introducing more variety of occupations in the rural areas. Simple technologies for processing of crops, milk and meat production, and small- scale manufacturing, would provide work for more people. Help is needed to form co-operative.

How change affects community development and health?

- a Political Forces Through political struggles, the oppressed sections of society strive to bring a change in their situation. If these forces become violent, development is hindered. There is much destruction of properties, injuries and perhaps loss of life. Bitter feelings may continue for a long time, and there is suffering for many. Such things are a set-back to health and development programmes.

There needs to be change, but we should strive for peaceful change by democratic means and not by violent revolution.

- b Socio-economic Forces The modern world is full of a variety of material things, and the changing culture has a deep effect on people. There is confusion and conflict. Often there is a break -down of former traditions and values, of family life and caste. Poor health both

mental and physical, result.

Poor people are tempted to buy things like transistor radio, or

Tinned baby foods, when they do not have enough to eat. They get things on credit and cannot pay back. The little bit of land they may have inherited has to be sold, debts pile up to the point of despair, and sometimes suicide.

In spite of land reforms and movements, even more land has gone into the hands of the few landlords. Rural development programmers seem to help these landlords more than they help the landless poor. The poorest section seems unable to benefit from schemes such as cottage industries. The free medicines of the health services are not much help to poor people who have no money even for food.

Health workers need to be a bridge to link these helpless poor with sources of development and welfare programmers so that their basic needs can be met. There needs to be much more education of the people in making better use of their resources, e.g. simple nutritious diet, use of simple remedies in sickness, and avoiding debts due to spending on family functions and religious festivals.

Both in the urban and in rural communities, people need help in adjusting to the changes of modern life. People need to understand what will really help to bring to birth a happy, healthy way of life for all. The Health worker in community has a vital role to play in bringing about these changes for the better.

Gathering Information About Our Communities

HEALTH STATISTICS

Health statistics are facts and figures which reveal the state of health of the community. Sickness and death, population, housing, lands, nutrition, social and economic factors, environment etc. are all important in measuring the health of the community.

Health statistics are collected by means of the following:

1. Census: Every 10 years this is taken. Each person's age, sex, marital status, birth place, religion, literacy, occupation and other information are collected on national level.
2. Registration of births, deaths and marriages. These are called vital statistics, or vital events (see chapter 2).
3. Notification of communicable diseases (see chapter 8)

- 4 Records of the Health center and hospital.
- 5 Health survey.

REGISTRATION OF VITAL STATISTICS

The registration of vital statistics is not satisfactory at present. Many births and deaths are not reported, and there are often mistakes in the data. The system of collection of vital statistics needs to be improved.

The Health worker can influence the community to bring about some improvements as follows:

- 1 Educating the community about the importance of registration and getting correct certificates of births, deaths and marriage.
- 2 Parents should produce a certificate of birth before a child is admitted to school.
- 3 Appointment of the secretary of the Gram Panchayat as the local Registrar.
- 4 The Registrar should send the data on to the proper authority without delay, and records kept up-to-date. A village record should show family wise records of vital events.
- 5 Officers of the Health Department may be encouraged to inspect the records.

Summary

- A community is a territorial group, which shares a common soil in the same locality.
- In rural community the people are living close to and well acquainted with each other.
- The main change in rural community is land is not cultivated jointly.
- The development of rural community in co-operation with planning of social organizations. Major problems are health, education and agricultural problems.
- Urban community is more fashionable, wide range of opportunities and employment and industrialization.
- Homelessness is a disturbing feature of city community.
- Growth of slum, crime, road accidents and unemployment are major problems.
- There is a vast change in socially and economically in urban communities.

Questions

- 1 Define Community?
- 2 How many communities are there? Explain the characteristics of rural community?
- 3 Write in detail about characteristics and development of urban community?
- 4 Write short notes on
 - a Development of rural community.
 - b Major rural problems.
 - c Urban problems

Glossary

Abdomen – stomach, the part of the body cavity

Abduction – to move a limb a part from the body

Abrasion – a minor wound in which the surface of the skin or mm is
worn away

Acute – severe symptoms with brief duration.

Adduction – move a limb towards the body.

Aerobic – requiring free oxygen for life and growth.

Albumin – protein that is soluble in water.

Albuminuria – presence of albumin in urine.

Anaerobic – growth of micro – organism without oxygen

Anesthesia- loss of feeling of sensation.

Antibiotic – the substance that derived from micro – organisms,
that destroys or inhibits the growth of micro – organism.

Anticoagulant – an agent that prevents the clotting of blood.

Antipyretic – a chemical that destroys the growth of disease caus-
ing bacteria and other micro – organism.

Anuria – absence of urination.

Apnea – absence of respiration.

Arrhythmia – deviation from the normal rhythm of the heart.

Ascites – abnormal accumulation of the fluid in the abdominal cav-
ity.

Auscultation – the process of listening with the aid of stethoscope,
produced by movement of gas or liquid with in the body.

Aspirate – process of the withdrawal of fluid from the body by means
of aspirator.

Bacteria – a group a micro – organism that do not have nucleus

and cause diseases.

Brady cardia – slowing the heart rate.

Catheter – a tube for insertion into a narrow opening of the body.

Chronic – prolonged or for a long time.

Colon – large intestine.

Coma – loss of consciousness or state of unconsciousness.

Congestion – an accumulation of blood within an organ.

Conscious – state of consciousness or arousal.

Constipation – a condition in which bowel evacuation occurs infrequently.

Contaminate – unhygienic

Crisis – sudden decrease of body temperature or the turning point of a disease.

Cyanosis – change of body into blue due to lack of oxygen.

Debility – Fatigue

Decubitus ulcer – ulcerated area of skin caused by irritation and continuous pressure on part of the body.

Defecation – process of passing bowel motion.

Deficient – Any disease caused by lack of an essential nutrient in the diet.

Dehydration – loss of water in body tissues.

Depressant – An agent that reduces the normal activity of the body system or function.

Dermis – The second layer of the skin, which is under epidermis.

Detoxification – The process where by toxic substance are removed

Diabetes mellitus – Increased blood sugar due to decreased production of insulin in the body.

Diagnosis – The process of determining the nature of the disorders

Diarrhorea – Loose motions.

Distal – A part from the center of the body.

Distention – Accumulation of body due to fluid or gas.

Diuretics – The drug, which increase urination.

Dyspnea – Difficulty in breathing

Edema – Swelling of the body due to increased accumulation of fluid in the tissues.

Electrolytes – The liquid, which contains minerals

Emesis – Expulsion of food or fluid from the stomach by vomit

Epidermis – Upper layer of the skin

Evaporate – Change of fluid into gas

Exhalation – Expelled air from lungs

Feces – Bowel or motion

Flatters – Gas present in the intestine

Flexion – Bending of the body part

Fracture – Discontinuation of the bone

Gastric – Pertaining to stomach

Hematemesis – blood in the urine

Hemiplegia – Partial paralysis

Hemoglobin – Substance which transport oxygen present in RBC

Hemolytic – Destroying of RBC

Haemoptysis – Blood in the sputum

Haemorrhage – Bleeding or loss of blood

Humidity – Moisture present in the air

Hyper tension – Increased blood pressure

Hypo tension – Decreased blood pressure

Hypothermia – Decreased body temperature

Immobile – Unable to move

Incision - Process of making cut by an instrument

Inflammation – Swelling due to destruction of body tissues

Insomnia – Loss of sleep

Inspection – Observation of the patient or things

Lumen – Tube like structure

Micturation – Process of urination

Obesity – Increased body fat or weight

Oliguria – Decreased amount urine

Palptation – Physical examination of the patient by touching

Palpitation – increased heart beat.

Pallor – Skin or mucus membrane become pale

Paralysis – Loss of movement of the body

Parenteral – Infusion of fluid or food other than oral

Pathogenic – Disease causing germs

Pediculosis – Presence of pediculi in the hair

Peristalsis – Movements of the intestine

Polyuria – Increased amount of urination

Postertor – Back side

Phlebitis – inflammation of blood vessel.

Proximal – towards the body

Puncture – process of doing hole to the body

Purulent – pus forming

Pyrexia – increased body temperature

Pyrogenic – formation of pus due to gems

Rectum – last part of the large intestine

Renal – pertaining to kidney

Respiration – process of inspiration above rectum

Sigmoid – part of large intestine above the rectum

Spasm – sudden contracting the body muscles

Sphincter – external opening of the body

Sphygmomanometer - instrument, which measures blood pressure

Sputum – thick mucus from wind pipe

Tachycardia – increased heart beat

Therapeutic – treat the disease

Thrombophlebitis – swelling of blood vessel due to blood clot

Thrombus – blood clot

Toxin – poisonous

Transfusion – Injection of blood to the patient from other person

Tranquilizer – Drug that produces calming effect

Unconscious – Loss of body activity

Urban – Pertaining to city

Ureter – Tube coming from kidney to bladder

Ventilation – Passage of air freely into and out.

Wheezing – Low pitched breathing sounds

Psychology – Study of mind or behavior

Sclera – External layer of the eye

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